Civil Engineering Database Keyword Index

The **Civil Engineering Database (CEDB)** is designed to provide free, easy bibliographic access to all ASCE publications. The database covers ASCE documents published since 1972. It provides access to all the journals, conference proceedings, books, standards, manuals, magazines, and newspapers. The index terms below were assigned to papers published in this journal during 2002 from a CEDB keyword list. The CEDB and keyword list can be accessed on the Web at *http://www.pubs.asce.org/cedbsrch.html*.

Abatement and removal
Sediment Removal Efficiency of Vortex Chamber Type Sediment Extractor. — Mohammad Athar, Umesh C. Kothyari, and Ramchandra J. Garde; 128(12), 1051-9 (2002).

Abutments
Temporal Evolution of Clear-Water Pier and Abutment Scour. — Giuseppe Oliveto and Willi H. Hager; 128(9), 811-20 (2002).

Accuracy
Stability and Accuracy of Weighted Four-Point Implicit Finite Difference Schemes for Open Channel Flow. — Maurizio Venutelli; 128(3), 281-8 (2002).

Acoustic measurement
Measurement of Bed Load Velocity using an Acoustic Doppler Current Profiler. — Colin D. Rennie, Robert G. Millar, and Michael A. Church; 128(5), 473-83 (2002).

Aeration
Case Study on Hydraulic Performance of Brent Reservoir Siphon Spillway. — K. Babaeyan-Koopaei, E. M. Valentine, and D. Alan Ervine; 128(6), 562-7 (2002).

Aggradation
Grain Sorting Processes. — Roni P. Hunziker and Martin N. R. Jaeggi; 128(12), 1060-8 (2002).

Aging
Fuzzy Approach for Analysis of Pipe Networks. — Roberto Revelli and Luca Ridolfi; 128(1), 93-101 (2002).

Air chambers
Effects of Free Outflow in Rising Mains with Air Chamber. — Antonio Rosario Di Santo, Umberto Fratino, Vito Iacobellis, and Alberto Ferruccio Piccinni; 128(11), 992-1001 (2002).

Air entrainment
Observations of Air–Water Interaction in a Rapidly Filling Horizontal Pipe. — F. Zhou, F. E. Hicks, and P. M. Steffler; 128(6), 635-9 (2002).

Air water interactions
Transient Flow in a Rapidly Filling Horizontal Pipe Containing Trapped Air. — F. Zhou, F. E. Hicks, and P. M. Steffler; 128(6), 625-34 (2002).
Observations of Air–Water Interaction in a Rapidly Filling Horizontal Pipe. — F. Zhou, F. E. Hicks, and P. M. Steffler; 128(6), 635-9 (2002).

Alluvial channels
Open Channel Flow Resistance. — Ben Chie Yen; 128(1), 20-39 (2002).
Numerical Modeling of Bed Evolution in Channel Bends. — Ahmed A. Kassem and M. Hanif Chaudhry; 128(5), 507-14 (2002).

Alluvial fans
Experimental Steep, Braided Flow: Application to Flooding Risk on Fans. — Dan Cazanacli, Chris Paola, and Gary Parker; 128(3), 322-30 (2002).

Alluvial streams
Coupled and Decoupled Numerical Modeling of Flow and Morphological Evolution in Alluvial Rivers. — Zhixian Cao, Rodney Day, and Shinji Egashira; 128(3), 306-21 (2002).
Modeling Nonuniform Suspended Sediment Transport in Alluvial Rivers. — Qing-Chao Guo and Yee-Chung Jin; 128(9), 839-47 (2002).

Aquatic habitats
Channel-Bed Scour with High versus Low Deflectors. — Douglas M. Thompson; 128(6), 640-3 (2002).

Aquifers
Solution for Flow Rates across the Wellbore in a Two-Zone Confined Aquifer. — Shaw-Yang Yang and Hund-Der Yeh; 128(2), 175-83 (2002).
Well Loss Estimation: Variable Pumping Replacing Step Drawdown Test. — Sushil K. Singh; 128(3), 343-8 (2002).
Aquifer Boundaries and Parameter Identification Simplified. — Sushil K. Singh; 128(8), 774-80 (2002).
Tide-Induced Water Table Fluctuations in Coastal Aquifers Bounded by Rhythmic Shorelines. — L. Li, P. Dong, and D. A. Barry; 128(10), 925-33 (2002).

Axisymmetry
Applicability of Quasisteady and Axisymmetric Turbulence Models in Water Hammer. — Mohamed S. Ghidaoui, Sameh G. S. Mansour, and Ming Zhao; 128(10), 917-24 (2002).

Bank erosion
Local Scour Associated with Angled Spur Dikes. — Roger A. Kuhnle, Carlos V. Alonso, and F. Douglas Shields, Jr.; 128(12), 1087-93 (2002).

Bank stabilization
Case Study: Channel Stability of the Missouri River, Eastern Montana. — Andrew Simon, Robert E. Thomas, Andrea Curini, and F. Douglas Shields, Jr.; 128(10), 880-90 (2002).

Barges
Unsteady Bed Shear Stresses Induced by Navigation: Laboratory Observations. — José F. Rodríguez, David M. Admiraal, Fabián López, and Marcelo H. García; 128(5), 515-26 (2002).

Bays
Case Study: Mass Transport Mechanism in Kyunggi Bay around Han River Mouth, Korea. — Kyeong Park, Jeong-Hwan Oh, Hong-Sun Kim, and Hyo-Hyuc Im; 128(3), 257-67 (2002).

Beaches
Field Observations of Ipanema Beach Outfall. — João L. B. Carvalho, Philip J. W. Roberts, and João Roldão; 128(2), 151-60 (2002).

Bed load
Fluctuations of Suspended Sediment Concentration and Turbulent Sediment Fluxes in an Open-Channel Flow. — Vladimir I. Nikora and Derek G. Goring; 128(2), 214-24 (2002).
Simulation of Bed-Load Dispersion Process. — Shou-young Chang and Chin-lien Yen; 128(3), 331-42 (2002).
Stochastic Prediction of Sediment Transport in Sand-Gravel Bed Rivers. — Maarten G. Kleinhans and Leo C. van Rijn; 128(4), 412-25 (2002).
Evaluation and Improvement of Bed Load Discharge Formulas based on Helley–Smith Sampling in an Alpine Gravel Bed River. — Helmut M. Habersack and Jonathan B. Laronne; 128(5), 484-99 (2002).
Exponential Formula for Bedload Transport. — Nian-Sheng Cheng; 128(10), 942-6 (2002).
Bedload Layer Thickness and Disturbance Depth in Gravel Bed Streams. — Paul DeVries; 128(11), 983-91 (2002).

Bed load movement
Measurement of Bed Load Velocity using an Acoustic Doppler Current Profiler. — Colin D. Rennie, Robert G. Millar, and Michael A. Church; 128(5), 473-83 (2002).

Bed loads
Probability of Individual Grain Movement and Threshold Condition. — Clinton L. Dancey, Panayiotis Diplas, Athanasios Papanicolaou, and Mahesh Bala; 128(12), 1069-75 (2002).

Bed materials
Bedload Layer Thickness and Disturbance Depth in Gravel Bed Streams. — Paul DeVries; 128(11), 983-91 (2002).

Bedforms
Discrete Particle Model for Analyzing Bedform Development. — Yarko Niño, Alonso Atala, Manuel Barahona, and David Aracena; 128(4), 381-9 (2002).

Beds
St. Venant–Exner Equations for Near-Critical and Transcritical Flows. — D. A. Lyn and M. Altinakar; 128(6), 579-87 (2002).
Hydraulic Jumps on Corrugated Beds. — S. A. Ead and N. Rajaratnam; 128(7), 656-63 (2002).

Bends, hydraulic
Simplified Model for Assessing Meander Bend Migration Rates. — W. Roy Richardson; 128(12), 1094-7 (2002).

Boundaries
Aquifer Boundaries and Parameter Identification Simplified. — Sushil K. Singh; 128(8), 774-80 (2002).

Boundary layers
Apparent Roughness in Wave–Current Flow: Implication for Coastal Studies. — Alexander Perlin and Eliezer Kit; 128(8), 729-41 (2002).

Brazil
Field Observations of Ipanema Beach Outfall. — João L. B. Carvalho, Philip J. W. Roberts, and João Roldão; 128(2), 151-60 (2002).

Bridge abutments
Shields' Entrainment Criterion in Bridge Hydraulics. — Willi H. Hager and Giuseppe Oliveto; 128(5), 538-42 (2002).

Bridges, piers
Temporal Evolution of Clear-Water Pier and Abutment Scour. — Giuseppe Oliveto and Willi H. Hager; 128(9), 811-20 (2002).

Case reports
Case Study: Dillon Dam Trashrack Damage. — H. T. Falvey and J. H. Weldon; 128(2), 144-50 (2002).
Case Study: Mass Transport Mechanism in Kyunggi Bay around Han River Mouth, Korea. — Kyeong Park, Jeong-Hwan Oh, Hong-Sun Kim, and Hyo-Hyuc Im; 128(3), 257-67 (2002).
Case Study on Hydraulic Performance of Brent Reservoir Siphon Spillway. — K. Babaeyan-Koopaei, E. M. Valentine, and D. Alan Ervine; 128(6), 562-7 (2002).
Case Study: Bed Resistance of Rhine River during 1998 Flood. — P. Y. Julien, G. J. Klaassen, W. B. M. Ten Brinke, and A. W. E. Wilbers; 128(12), 1042-50 (2002).

Centrifuge
Effect of Speed on the Performance Characteristics of a Centrifugal Slurry Pump. — B. K. Gandhi, S. N. Singh, and V. Seshadri; 128(2), 225-33 (2002).

Channel beds
Continuous Saltating Process of Multiple Sediment Particles. — Hong-Yuan Lee, Jiing-Yun You, and Ying-Tien Lin; 128(4), 443-50 (2002).
Channel-Bed Scour with High versus Low Deflectors. — Douglas M. Thompson; 128(6), 640-3 (2002).

Channel bends
Numerical Modeling of Bed Evolution in Channel Bends. — Ahmed A. Kassem and M. Hanif Chaudhry; 128(5), 507-14 (2002).

Channel flow
Hydraulic Resistance of Flow in Channels with Cylindrical Roughness. — Brian M. Stone and Hung Tao Shen; 128(5), 500-6 (2002).
Horizontal Viscous Dam—Break Flow: Experiments and Theory. — Blaise Nsom; 128(5), 543-6 (2002).
Analytical Solution to the Zero-Inertia Problem for Surge Flow Phenomena in Nonprismatic Channels. — G. H. Schmitz, R. Liedl, and R. E. Volker; 128(6), 604-15 (2002).
Flow Velocity Measurements in Vegetated Channels. — F. G. Carollo, V. Ferro, and D. Termini; 128(7), 664-73 (2002).
Three-Dimensional Hydrodynamics of Meandering Compound Channels. — H. Morvan, G. Pender, N. G. Wright, and D. A. Ervine; 128(7), 674-82 (2002).
Lateral Weir Flow Model using a Curve Fitting Analysis. — Yilmaz Muslu; 128(7), 712-5 (2002).
Longitudinal Dispersion Coefficient in Single-Channel Streams. — Z.-Q. Deng, L. Bengtsson, V. P. Singh, and D. D. Adrian; 128(10), 901-16 (2002).
Dam Break in Channels with 90° Bend. — S. Soares Frazão and Y. Zech; 128(11), 956-68 (2002).
Undular Hydraulic Jumps in Circular Conduits. — Rudy Gargano and Willi H. Hager; 128(11), 1008-13 (2002).
Generalized Study of Hydraulics of Culvert Fishways. — S. A. Ead, N. Rajaratnam, and C. Katopodis; 128(11), 1018-22 (2002).

Channel stabilization
Case Study: Channel Stability of the Missouri River, Eastern Montana. — Andrew Simon, Robert E. Thomas, Andrea Curini, and F. Douglas Shields, Jr.; 128(10), 880-90 (2002).

Channels, waterways
Gravitational and Shear Instabilities in Compound and Composite Channels. — A. A. Kolyshkin and M. S. Ghidaoui; 128(12), 1076-86 (2002).

Chile
Simple Model for Downstream Variation of Median Sediment Size in Chilean Rivers. — Yarko Niño; 128(10), 934-41 (2002).

China
New Method for Meander-Loop Cutoffs. — Shaolong Xiong, Zhaocai Xu, and Wenjie Wang; 128(3), 354-8 (2002).
Field Investigation of Frazil Jam Evolution: A Case Study. — Jueyi Sui, Bryan W. Karney, Zhaochu Sun, and Desheng Wang; 128(8), 781-7 (2002).

Coastal environment
Tide-Induced Water Table Fluctuations in Coastal Aquifers Bounded by Rhythmic Shorelines. — L. Li, P. Dong, and D. A. Barry; 128(10), 925-33 (2002).

Coefficients
Longitudinal Dispersion Coefficient in Single-Channel Streams. — Z.-Q. Deng, L. Bengtsson, V. P. Singh, and D. D. Adrian; 128(10), 901-16 (2002).

Cohesionless sediment
Modeling Nonuniform Suspended Sediment Transport in Alluvial Rivers. — Qing-Chao Guo and Yee-Chung Jin; 128(9), 839-47 (2002).

Colorado
Case Study: Dillon Dam Trashrack Damage. — H. T. Falvey and J. H. Weldon; 128(2), 144-50 (2002).

Computation
Discrete Fluxes and Mass Balance in Finite Elements. — R. C. Berger and S. E. Howington; 128(1), 87-92 (2002).
Stability and Accuracy of Weighted Four-Point Implicit Finite Difference Schemes for Open Channel Flow. — Maurizio Venutelli; 128(3), 281-8 (2002).
Analytical Solution to the Zero-Inertia Problem for Surge Flow Phenomena in Nonprismatic Channels. — G. H. Schmitz, R. Liedl, and R. E. Volker; 128(6), 604-15 (2002).

Computer model
Modeling Underwater Oil/Gas Jets and Plumes: Comparison with Field Data. — Poojitha D. Yapa and Hao Xie; 128(9), 855-60 (2002).

Connecticut
Channel-Bed Scour with High versus Low Deflectors. — Douglas M. Thompson; 128(6), 640-3 (2002).

Contraction
Subcritical 90° Equal-Width Open-Channel Dividing Flow. — Chung-Chieh Hsu, Chii-Jau Tang, Wen-Jung Lee, and Mon-Yi Shieh; 128(7), 716-20 (2002).

Coupled systems
Coupled and Decoupled Numerical Modeling of Flow and Morphological Evolution in Alluvial Rivers. — Zhixian Cao, Rodney Day, and Shinji Egashira; 128(3), 306-21 (2002).

Critical flow
St. Venant–Exner Equations for Near-Critical and Transcritical Flows. — D. A. Lyn and M. Altinakar; 128(6), 579-87 (2002).

Culverts
Generalized Study of Hydraulics of Culvert Fishways. — S. A. Ead, N. Rajaratnam, and C. Katopodis; 128(11), 1018-22 (2002).

Cutoffs
New Method for Meander-Loop Cutoffs. — Shaolong Xiong, Zhaocai Xu, and Wenjie Wang; 128(3), 354-8 (2002).

Dam breaches
Overtopping Breaching of Noncohesive Homogeneous Embankments. — Stephen E. Coleman, Darryl P. Andrews, and M. Grant Webby; 128(9), 829-38 (2002).

Dam failure
Case Study: Malpasset Dam-Break Simulation using a Two-Dimensional Finite Volume Method. — Alessandro Valiani, Valerio Caleffi, and Andrea Zanni; 128(5), 460-72 (2002).
Overtopping Breaching of Noncohesive Homogeneous Embankments. — Stephen E. Coleman, Darryl P. Andrews, and M. Grant Webby; 128(9), 829-38 (2002).

Dam stability
Case Study: Malpasset Dam-Break Simulation using a Two-Dimensional Finite Volume Method. — Alessandro Valiani, Valerio Caleffi, and Andrea Zanni; 128(5), 460-72 (2002).

Damage
Case Study: Dillon Dam Trashrack Damage. — H. T. Falvey and J. H. Weldon; 128(2), 144-50 (2002).

Damping
Hybrid Finite-Difference Scheme for Solving the Dispersion Equation. — Tung-Lin Tsai, Jinn-Chuang Yang, and Liang-Hsiung Huang; 128(1), 78-86 (2002).
Leak Detection in Pipelines using the Damping of Fluid Transients. — Xiao-Jian Wang, Martin F. Lambert, Angus R. Simpson, James A. Liggett, and John P. Vítkovský; 128(7), 697-711 (2002).

Dams
Case Study: Dillon Dam Trashrack Damage. — H. T. Falvey and J. H. Weldon; 128(2), 144-50 (2002).
Unified Modeling of Fluid or Granular Flows on Dam-Break Case. — Richard Frenette, Thomas Zimmermann, and Dominique Eyheramendy; 128(3), 299-305 (2002).
Horizontal Viscous Dam—Break Flow: Experiments and Theory. — Blaise Nsom; 128(5), 543-6 (2002).

Darcy's law
Averaging Pore Statistics of Two-Dimensional Images for Predicting Permeability. — W. Chad Vaughan, Dale H. Easley, and Dawn L. Lavoie; 128(11), 1002-7 (2002).
Revisited Analysis of Pressure Drop in Flow through Crushed Rocks. — J. Legrand; 128(11), 1027-31 (2002).

Data analysis
Persistence of Skewness in Longitudinal Dispersion Data: Can the Dead Zone Model Explain It After All? — Bernhard H. Schmid; 128(9), 848-54 (2002).
Time-Averaged Mixing Behavior of Circular Jet in Counterflow: Velocity and Concentration Measurements. — K. M. Lam and C. H. C. Chan; 128(9), 861-5 (2002).

Data collection
Strongly Advected Jet in a Coflow. — M. J. Davidson and H. J. Wang; 128(8), 742-52 (2002).
Temporal Evolution of Clear-Water Pier and Abutment Scour. — Giuseppe Oliveto and Willi H. Hager; 128(9), 811-20 (2002).

Data processing
Despiking Acoustic Doppler Velocimeter Data. — Derek G. Goring and Vladimir I. Nikora; 128(1), 117-26 (2002).

Decay
Analytical Solutions for Unsteady Transport Dispersion of Nonconservative Pollutant with Time-Dependent Periodic Waste Discharge Concentration. — V. P. Shukla; 128(9), 866-9 (2002).

Deep water
Modeling Underwater Oil/Gas Jets and Plumes: Comparison with Field Data. — Poojitha D. Yapa and Hao Xie; 128(9), 855-60 (2002).

Density currents
$k-\varepsilon$ Turbulence Modeling of Density Currents Developing Two Dimensionally on a Slope. — Sung-Uk Choi and Marcelo H. García; 128(1), 55-63 (2002).
Spreading of a Gravity Current over a Permeable Surface. — B. M. Marino and L. P. Thomas; 128(5), 527-33 (2002).

Design criteria
Effects of Free Outflow in Rising Mains with Air Chamber. — Antonio Rosario Di Santo, Umberto Fratino, Vito Iacobellis, and Alberto Ferruccio Piccinni; 128(11), 992-1001 (2002).

Diffusion
Deterministic Advection-Diffusion Model Based on Markov Processes. — João S. Ferreira and Manuel Costa; 128(4), 399-411 (2002).

Dikes
Local Scour Associated with Angled Spur Dikes. — Roger A. Kuhnle, Carlos V. Alonso, and F. Douglas Shields, Jr.; 128(12), 1087-93 (2002).

Dilution
Field Observations of Ipanema Beach Outfall. — João L. B. Carvalho, Philip J. W. Roberts, and João Roldão; 128(2), 151-60 (2002).
Jet Integral–Particle Tracking Hybrid Model for Single Buoyant Jets. — Young Do Kim, Il Won Seo, See Whan Kang, and Byung Cheol Oh; 128(8), 753-60 (2002).

Discharge measurement
Flood Discharge Prediction using Two-Dimensional Inverse Modeling. — S. Sulzer, P. Rutschmann, and W. Kinzelbach; 128(1), 46-54 (2002).
Measurement of Small Discharges in Open Channels by Slit Weir. — Ismail Aydin, A. Metin Ger, and Onur Hincal; 128(2), 234-7 (2002).

Discrete elements
Discrete Particle Model for Analyzing Bedform Development. — Yarko Niño, Alonso Atala, Manuel Barahona, and David Aracena; 128(4), 381-9 (2002).

Dispersion
Hybrid Finite-Difference Scheme for Solving the Dispersion Equation. — Tung-Lin Tsai, Jinn-Chuang Yang, and Liang-Hsiung Huang; 128(1), 78-86 (2002).
Simulation of Bed-Load Dispersion Process. — Shou-young Chang and Chin-lien Yen; 128(3), 331-42 (2002).
Persistence of Skewness in Longitudinal Dispersion Data: Can the Dead Zone Model Explain It After All? — Bernhard H. Schmid; 128(9), 848-54 (2002).
Analytical Solutions for Unsteady Transport Dispersion of Nonconservative Pollutant with Time-Dependent Periodic Waste Discharge Concentration. — V. P. Shukla; 128(9), 866-9 (2002).

Dissipation
Stability and Accuracy of Weighted Four-Point Implicit Finite Difference Schemes for Open Channel Flow. — Maurizio Venutelli; 128(3), 281-8 (2002).

Distributary channels
Lateral Weir Flow Model using a Curve Fitting Analysis. — Yilmaz Muslu; 128(7), 712-5 (2002).

Drag
Surface Wave Forces Acting on Submerged Logs. — Nicholas P. Wallerstein, Carlos V. Alonso, Sean J. Bennett, and Colin R. Thorne; 128(3), 349-53 (2002).

Drawdown
Well Loss Estimation: Variable Pumping Replacing Step Drawdown Test. — Sushil K. Singh; 128(3), 343-8 (2002).

Drop structures
Flow Characteristics at Drops. — M. R. Chamani and M. K. Beirami; 128(8), 788-91 (2002).

Dunes
Case Study: Bed Resistance of Rhine River during 1998 Flood. — P. Y. Julien, G. J. Klaassen, W. B. M. Ten Brinke, and A. W. E. Wilbers; 128(12), 1042-50 (2002).

Dynamic models
Dynamic Model for Subcritical Combining Flows in Channel Junctions. — Shazy Shabayek, Peter Steffler, and F. E. Hicks; 128(9), 821-8 (2002).

Embankments
Overtopping Breaching of Noncohesive Homogeneous Embankments. — Stephen E. Coleman, Darryl P. Andrews, and M. Grant Webby; 128(9), 829-38 (2002).

Embayments
Flow in Open-Channel Embayments. — Kazumasa Mizumura and Masashige Yamasaka; 128(12), 1098-101 (2002).

Energy dissipation
Efficient Treatment of the Vardy–Brown Unsteady Shear in Pipe Transients. — Mohamed S. Ghidaoui and Sameh Mansour; 128(1), 102-12 (2002).
Unsteady Flow in Hydraulic Networks with Polymeric Additional Pipe. — Giuseppe Pezzinga; 128(2), 238-44 (2002).
Hydraulic Jumps on Corrugated Beds. — S. A. Ead and N. Rajaratnam; 128(7), 656-63 (2002).
Flow Characteristics at Drops. — M. R. Chamani and M. K. Beirami; 128(8), 788-91 (2002).

Energy losses
Flow Characteristics at Drops. — M. R. Chamani and M. K. Beirami; 128(8), 788-91 (2002).

Entrainment
Pickup Probability of Sediment under Log-Normal Velocity Distribution. — Fu-Chun Wu and Yao-Cheng Lin; 128(4), 438-42 (2002).
Shields' Entrainment Criterion in Bridge Hydraulics. — Willi H. Hager and Giuseppe Oliveto; 128(5), 538-42 (2002).

Erosion control
Stability and Erosion in Grassed Channels. — Jamal M. V. Samani and Nicholas Kouwen; 128(1), 40-5 (2002).

Error analysis
Pickup Probability of Sediment under Log-Normal Velocity Distribution. — Fu-Chun Wu and Yao-Cheng Lin; 128(4), 438-42 (2002).

Estuaries
Mitigation of Salinity Intrusion in Well-mixed Estuaries by Optimization of Freshwater Diversion Rates. — Brett F. Sanders and Michael Piasecki; 128(1), 64-77 (2002).
Averaging Pore Statistics of Two-Dimensional Images for Predicting Permeability. — W. Chad Vaughan, Dale H. Easley, and Dawn L. Lavoie; 128(11), 1002-7 (2002).

Experimental data
Effects of Free Outflow in Rising Mains with Air Chamber. — Antonio Rosario Di Santo, Umberto Fratino, Vito Iacobellis, and Alberto Ferruccio Piccinni; 128(11), 992-1001 (2002).

Experimentation
An Experimental Study on Turbulent Circular Wall Jets. — Adrian Wing-Keung Law and Herlina; 128(2), 161-74 (2002).

Explosion
Modeling Underwater Oil/Gas Jets and Plumes: Comparison with Field Data. — Poojitha D. Yapa and Hao Xie; 128(9), 855-60 (2002).

Extraction procedures
Sediment Removal Efficiency of Vortex Chamber Type Sediment Extractor. — Mohammad Athar, Umesh C. Kothyari, and Ramchandra J. Garde; 128(12), 1051-9 (2002).

Field investigations
Field Investigation of Frazil Jam Evolution: A Case Study. — Jueyi Sui, Bryan W. Karney, Zhaochu Sun, and Desheng Wang; 128(8), 781-7 (2002).
Effects of Free Outflow in Rising Mains with Air Chamber. — Antonio Rosario Di Santo, Umberto Fratino, Vito Iacobellis, and Alberto Ferruccio Piccinni; 128(11), 992-1001 (2002).

Finite difference method
Hybrid Finite-Difference Scheme for Solving the Dispersion Equation. — Tung-Lin Tsai, Jinn-Chuang Yang, and Liang-Hsiung Huang; 128(1), 78-86 (2002).

Stability and Accuracy of Weighted Four-Point Implicit Finite Difference Schemes for Open Channel Flow. — Maurizio Venutelli; 128(3), 281-8 (2002).

Finite element method

Effect of Applying Different Distribution Shapes for Velocities and Pressure on Simulation of Curved Open Channels. — Haitham Kamal Ghamry and Peter M. Steffler; 128(11), 969-82 (2002).

Finite elements

Discrete Fluxes and Mass Balance in Finite Elements. — R. C. Berger and S. E. Howington; 128(1), 87-92 (2002).

Fish management

Generalized Study of Hydraulics of Culvert Fishways. — S. A. Ead, N. Rajaratnam, and C. Katopodis; 128(11), 1018-22 (2002).

Fishways

Generalized Study of Hydraulics of Culvert Fishways. — S. A. Ead, N. Rajaratnam, and C. Katopodis; 128(11), 1018-22 (2002).

Flood

New Method for Meander-Loop Cutoffs. — Shaolong Xiong, Zhaocai Xu, and Wenjie Wang; 128(3), 354-8 (2002).

Flood hydrology

Flood Discharge Prediction using Two-Dimensional Inverse Modeling. — S. Sulzer, P. Rutschmann, and W. Kinzelbach; 128(1), 46-54 (2002).

Flood plains

Experimental Steep, Braided Flow: Application to Flooding Risk on Fans. — Dan Cazanacli, Chris Paola, and Gary Parker; 128(3), 322-30 (2002).

New Method for Meander-Loop Cutoffs. — Shaolong Xiong, Zhaocai Xu, and Wenjie Wang; 128(3), 354-8 (2002).

Floods

Finite-Volume Model for Shallow-Water Flooding of Arbitrary Topography. — Scott F. Bradford and Brett F. Sanders; 128(3), 289-98 (2002).

Experimental Steep, Braided Flow: Application to Flooding Risk on Fans. — Dan Cazanacli, Chris Paola, and Gary Parker; 128(3), 322-30 (2002).

Bedload Layer Thickness and Disturbance Depth in Gravel Bed Streams. — Paul DeVries; 128(11), 983-91 (2002).

Case Study: Bed Resistance of Rhine River during 1998 Flood. — P. Y. Julien, G. J. Klaassen, W. B. M. Ten Brinke, and A. W. E. Wilbers; 128(12), 1042-50 (2002).

Flow characteristics

Strongly Advected Jet in a Coflow. — M. J. Davidson and H. J. Wang; 128(8), 742-52 (2002).

Flow control

Control Curves for Two-Layer Flows. — David Z. Zhu; 128(1), 113-6 (2002).

Flow rates

Control Curves for Two-Layer Flows. — David Z. Zhu; 128(1), 113-6 (2002).

Solution for Flow Rates across the Wellbore in a Two-Zone Confined Aquifer. — Shaw-Yang Yang and Hund-Der Yeh; 128(2), 175-83 (2002).

Flow resistance

Open Channel Flow Resistance. — Ben Chie Yen; 128(1), 20-39 (2002).

Relatively Rough Flow Resistance Equations. — Graeme M. Smart, Maurice J. Duncan, and Jeremy M. Walsh; 128(6), 568-78 (2002).

Supercritical Flow across Sewer Manholes. — Rudy Gargano and Willi H. Hager; 128(11), 1014-7 (2002).

Case Study: Bed Resistance of Rhine River during 1998 Flood. — P. Y. Julien, G. J. Klaassen, W. B. M. Ten Brinke, and A. W. E. Wilbers; 128(12), 1042-50 (2002).

Flow separation

Dynamic Model for Subcritical Combining Flows in Channel Junctions. — Shazy Shabayek, Peter Steffler, and F. E. Hicks; 128(9), 821-8 (2002).

Flow simulation

Coupled and Decoupled Numerical Modeling of Flow and Morphological Evolution in Alluvial Rivers. — Zhixian Cao, Rodney Day, and Shinji Egashira; 128(3), 306-21 (2002).

Fluid dynamics

Three-Dimensional Hydrodynamics of Meandering Compound Channels. — H. Morvan, G. Pender, N. G. Wright, and D. A. Ervine; 128(7), 674-82 (2002).

Fluvial hydraulics

Stochastic Variability of Fluvial Hydraulic Geometry: Mississippi and Red Rivers. — Daniel L. Buhman, Timothy K. Gates, and Chester C. Watson; 128(4), 426-37 (2002).

France

Case Study: Malpasset Dam-Break Simulation using a Two-Dimensional Finite Volume Method. — Alessandro Valiani, Valerio Caleffi, and Andrea Zanni; 128(5), 460-72 (2002).

Frazil ice

Field Investigation of Frazil Jam Evolution: A Case Study. — Jueyi Sui, Bryan W. Karney, Zhaochu Sun, and Desheng Wang; 128(8), 781-7 (2002).

Free surfaces

Quantitative Comparison of Models for Barotropic Response of Homogeneous Basins. — Francisco J. Rueda and S. Geoffrey Schladow; 128(2), 201-13 (2002).

Volume of Fluid Model for Turbulence Numerical Simulation of Stepped Spillway Overflow. — Qun Chen, Guangqing Dai, and Haowu Liu; 128(7), 683-8 (2002).

Rough Wall Boundary Layer on Plates in Open Channels. — Ram Balachandar and V. C. Patel; 128(10), 947-51 (2002).

Fresh water

Mitigation of Salinity Intrusion in Well-mixed Estuaries by Optimization of Freshwater Diversion Rates. — Brett F. Sanders and Michael Piasecki; 128(1), 64-77 (2002).

Friction

Efficient Treatment of the Vardy–Brown Unsteady Shear in Pipe Transients. — Mohamed S. Ghidaoui and Sameh Mansour; 128(1), 102-12 (2002).

Friction factor

Relatively Rough Flow Resistance Equations. — Graeme M. Smart, Maurice J. Duncan, and Jeremy M. Walsh; 128(6), 568-78 (2002).

Revisited Analysis of Pressure Drop in Flow through Crushed Rocks. — J. Legrand; 128(11), 1027-31 (2002).

Gravitational and Shear Instabilities in Compound and Composite Channels. — A. A. Kolyshkin and M. S. Ghidaoui; 128(12), 1076-86 (2002).

Froude number

Subcritical 90° Equal-Width Open-Channel Dividing Flow. — Chung-Chieh Hsu, Chii-Jau Tang, Wen-Jung Lee, and Mon-Yi Shieh; 128(7), 716-20 (2002).

Gravitational and Shear Instabilities in Compound and Composite Channels. — A. A. Kolyshkin and M. S. Ghidaoui; 128(12), 1076-86 (2002).

Fuzzy sets

Fuzzy Approach for Analysis of Pipe Networks. — Roberto Revelli and Luca Ridolfi; 128(1), 93-101 (2002).

Gaging stations

Flood Discharge Prediction using Two-Dimensional Inverse Modeling. — S. Sulzer, P. Rutschmann, and W. Kinzelbach; 128(1), 46-54 (2002).

Gasoline

Modeling Underwater Oil/Gas Jets and Plumes: Comparison with Field Data. — Poojitha D. Yapa and Hao Xie; 128(9), 855-60 (2002).

Geometry

Stochastic Variability of Fluvial Hydraulic Geometry: Mississippi and Red Rivers. — Daniel L. Buhman, Timothy K. Gates, and Chester C. Watson; 128(4), 426-37 (2002).

Geomorphology

Bedload Layer Thickness and Disturbance Depth in Gravel Bed Streams. — Paul DeVries; 128(11), 983-91 (2002).

Germany

Analytical Solution to the Zero-Inertia Problem for Surge Flow Phenomena in Nonprismatic Channels. — G. H. Schmitz, R. Liedl, and R. E. Volker; 128(6), 604-15 (2002).

Gradually varied flow

Uncertainty in Water Surface Profile of Buried Stream Flowing under Coarse Material. — David Hansen and Rizwanul Bari; 128(8), 761-73 (2002).

Grains

Grain Sorting Processes. — Roni P. Hunziker and Martin N. R. Jaeggi; 128(12), 1060-8 (2002).

Probability of Individual Grain Movement and Threshold Condition. — Clinton L. Dancey, Panayiotis Diplas, Athanasios Papanicolaou, and Mahesh Bala; 128(12), 1069-75 (2002).

Graphical analysis

Control Curves for Two-Layer Flows. — David Z. Zhu; 128(1), 113-6 (2002).

Gravel

Evaluation and Improvement of Bed Load Discharge Formulas based on Helley–Smith Sampling in an Alpine Gravel Bed River. — Helmut M. Habersack and Jonathan B. Laronne; 128(5), 484-99 (2002).

Bedload Layer Thickness and Disturbance Depth in Gravel Bed Streams. — Paul DeVries; 128(11), 983-91 (2002).

Gravity waves

Gravitational and Shear Instabilities in Compound and Composite Channels. — A. A. Kolyshkin and M. S. Ghidaoui; 128(12), 1076-86 (2002).

Grid systems

Spreading of a Gravity Current over a Permeable Surface. — B. M. Marino and L. P. Thomas; 128(5), 527-33 (2002).

Ground water
Solution for Flow Rates across the Wellbore in a Two-Zone Confined Aquifer. — Shaw-Yang Yang and Hund-Der Yeh; 128(2), 175-83 (2002).

History
What Is Hydraulic Engineering? — James A. Liggett; 128(1), 10-9 (2002).

Hybrid methods
Jet Integral–Particle Tracking Hybrid Model for Single Buoyant Jets. — Young Do Kim, Il Won Seo, See Whan Kang, and Byung Cheol Oh; 128(8), 753-60 (2002).

Hydraulic design
Flow Characteristics at Drops. — M. R. Chamani and M. K. Beirami; 128(8), 788-91 (2002).

Hydraulic engineering
What Is Hydraulic Engineering? — James A. Liggett; 128(1), 10-9 (2002).
Discrete Fluxes and Mass Balance in Finite Elements. — R. C. Berger and S. E. Howington; 128(1), 87-92 (2002).

Hydraulic gradients
Revisited Analysis of Pressure Drop in Flow through Crushed Rocks. — J. Legrand; 128(11), 1027-31 (2002).

Hydraulic jets
An Experimental Study on Turbulent Circular Wall Jets. — Adrian Wing-Keung Law and Herlina; 128(2), 161-74 (2002).
Time-Averaged Mixing Behavior of Circular Jet in Counterflow: Velocity and Concentration Measurements. — K. M. Lam and C. H. C. Chan; 128(9), 861-5 (2002).

Hydraulic jumps
Hydraulic Jumps on Corrugated Beds. — S. A. Ead and N. Rajaratnam; 128(7), 656-63 (2002).
Undular Hydraulic Jumps in Circular Conduits. — Rudy Gargano and Willi H. Hager; 128(11), 1008-13 (2002).

Hydraulic models
Finite-Volume Model for Shallow-Water Flooding of Arbitrary Topography. — Scott F. Bradford and Brett F. Sanders; 128(3), 289-98 (2002).
Unified Modeling of Fluid or Granular Flows on Dam-Break Case. — Richard Frenette, Thomas Zimmermann, and Dominique Eyheramendy; 128(3), 299-305 (2002).
Extended-Period Analysis with a Transient Model. — Yves R. Filion and Bryan W. Karney; 128(6), 616-24 (2002).
Lateral Weir Flow Model using a Curve Fitting Analysis. — Yilmaz Muslu; 128(7), 712-5 (2002).
Simplified Model for Assessing Meander Bend Migration Rates. — W. Roy Richardson; 128(12), 1094-7 (2002).

Hydraulic networks
Unsteady Flow in Hydraulic Networks with Polymeric Additional Pipe. — Giuseppe Pezzinga; 128(2), 238-44 (2002).

Hydraulic performance
Case Study on Hydraulic Performance of Brent Reservoir Siphon Spillway. — K. Babaeyan-Koopaei, E. M. Valentine, and D. Alan Ervine; 128(6), 562-7 (2002).

Hydraulic roughness
Hydraulic Resistance of Flow in Channels with Cylindrical Roughness. — Brian M. Stone and Hung Tao Shen; 128(5), 500-6 (2002).

Hydraulic structures
Three-Dimensional Numerical Study of Flows in Open-Channel Junctions. — Jianchun Huang, Larry J. Weber, and Yong G. Lai; 128(3), 268-80 (2002).
Flow Characteristics at Drops. — M. R. Chamani and M. K. Beirami; 128(8), 788-91 (2002).
Effect of Applying Different Distribution Shapes for Velocities and Pressure on Simulation of Curved Open Channels. — Haitham Kamal Ghamry and Peter M. Steffler; 128(11), 969-82 (2002).

Hydraulics
Control Curves for Two-Layer Flows. — David Z. Zhu; 128(1), 113-6 (2002).
Supercritical Flow across Sewer Manholes. — Rudy Gargano and Willi H. Hager; 128(11), 1014-7 (2002).
Generalized Study of Hydraulics of Culvert Fishways. — S. A. Ead, N. Rajaratnam, and C. Katopodis; 128(11), 1018-22 (2002).

Hydrostatics
Quantitative Comparison of Models for Barotropic Response of Homogeneous Basins. — Francisco J. Rueda and S. Geoffrey Schladow; 128(2), 201-13 (2002).

Ice jams
Field Investigation of Frazil Jam Evolution: A Case Study. — Jueyi Sui, Bryan W. Karney, Zhaochu Sun, and Desheng Wang; 128(8), 781-7 (2002).
Applicability of Criterion for Onset of River Ice Breakup. — Qizhong Guo; 128(11), 1023-6 (2002).

Imaging techniques
Averaging Pore Statistics of Two-Dimensional Images for Predicting Permeability. — W. Chad Vaughan, Dale H. Easley, and Dawn L. Lavoie; 128(11), 1002-7 (2002).

Incipient motion
Stochastic Incipient Motion Criterion for Spheres under Various Bed Packing Conditions. — A. N. Papanicolaou, P. Diplas, N. Evaggelopoulos, and S. Fotopoulos; 128(4), 369-80 (2002).

Jet diffusion
Jet Integral–Particle Tracking Hybrid Model for Single Buoyant Jets. — Young Do Kim, Il Won Seo, See Whan Kang, and Byung Cheol Oh; 128(8), 753-60 (2002).

Jets
Strongly Advected Jet in a Coflow. — M. J. Davidson and H. J. Wang; 128(8), 742-52 (2002).
Jet Integral–Particle Tracking Hybrid Model for Single Buoyant Jets. — Young Do Kim, Il Won Seo, See Whan Kang, and Byung Cheol Oh; 128(8), 753-60 (2002).

Korea
Case Study: Mass Transport Mechanism in Kyunggi Bay around Han River Mouth, Korea. — Kyeong Park, Jeong-Hwan Oh, Hong-Sun Kim, and Hyo-Hyuc Im; 128(3), 257-67 (2002).

Laboratory tests
Hydraulic Resistance of Flow in Channels with Cylindrical Roughness. — Brian M. Stone and Hung Tao Shen; 128(5), 500-6 (2002).
Unsteady Bed Shear Stresses Induced by Navigation: Laboratory Observations. — José F. Rodríguez, David M. Admiraal, Fabián López, and Marcelo H. García; 128(5), 515-26 (2002).

Leakage
Leak Detection in Pipelines using the Damping of Fluid Transients. — Xiao-Jian Wang, Martin F. Lambert, Angus R. Simpson, James A. Liggett, and John P. Vítkovský; 128(7), 697-711 (2002).

Manholes
Supercritical Flow across Sewer Manholes. — Rudy Gargano and Willi H. Hager; 128(11), 1014-7 (2002).

Marine clays
Averaging Pore Statistics of Two-Dimensional Images for Predicting Permeability. — W. Chad Vaughan, Dale H. Easley, and Dawn L. Lavoie; 128(11), 1002-7 (2002).

Markov process
Deterministic Advection-Diffusion Model Based on Markov Processes. — João S. Ferreira and Manuel Costa; 128(4), 399-411 (2002).

Mass
Discrete Fluxes and Mass Balance in Finite Elements. — R. C. Berger and S. E. Howington; 128(1), 87-92 (2002).

Mathematical models
Analytical Solutions for Unsteady Transport Dispersion of Nonconservative Pollutant with Time-Dependent Periodic Waste Discharge Concentration. — V. P. Shukla; 128(9), 866-9 (2002).

Measurement
Time-Averaged Mixing Behavior of Circular Jet in Counterflow: Velocity and Concentration Measurements. — K. M. Lam and C. H. C. Chan; 128(9), 861-5 (2002).
Velocity and Turbulence Measurements for Two Overbank Flow Events in River Severn. — K. Babaeyan-Koopaei, D. A. Ervine, P. A. Carling, and Z. Cao; 128(10), 891-900 (2002).

Measuring instruments
Despiking Acoustic Doppler Velocimeter Data. — Derek G. Goring and Vladimir I. Nikora; 128(1), 117-26 (2002).

Minnesota
Applicability of Criterion for Onset of River Ice Breakup. — Qizhong Guo; 128(11), 1023-6 (2002).

Mississippi River
Stochastic Variability of Fluvial Hydraulic Geometry: Mississippi and Red Rivers. — Daniel L. Buhman, Timothy K. Gates, and Chester C. Watson; 128(4), 426-37 (2002).
Applicability of Criterion for Onset of River Ice Breakup. — Qizhong Guo; 128(11), 1023-6 (2002).

Missouri River
Case Study: Channel Stability of the Missouri River, Eastern Montana. — Andrew Simon, Robert E. Thomas, Andrea Curini, and F. Douglas Shields, Jr.; 128(10), 880-90 (2002).

Mixing
Jet Integral–Particle Tracking Hybrid Model for Single Buoyant Jets. — Young Do Kim, Il Won Seo, See Whan Kang, and Byung Cheol Oh; 128(8), 753-60 (2002).

Models
$k-\varepsilon$ Turbulence Modeling of Density Currents Developing Two Dimensionally on a Slope. — Sung-Uk Choi and Marcelo H. García; 128(1), 55-63 (2002).

Modeling of Conjunctive Two-Dimensional Surface-Three-Dimensional Subsurface Flows. — Masaru Morita and Ben Chie Yen; 128(2), 184-200 (2002).
Discrete Particle Model for Analyzing Bedform Development. — Yarko Niño, Alonso Atala, Manuel Barahona, and David Aracena; 128(4), 381-9 (2002).
Persistence of Skewness in Longitudinal Dispersion Data: Can the Dead Zone Model Explain It After All? — Bernhard H. Schmid; 128(9), 848-54 (2002).
Applicability of Quasisteady and Axisymmetric Turbulence Models in Water Hammer. — Mohamed S. Ghidaoui, Sameh G. S. Mansour, and Ming Zhao; 128(10), 917-24 (2002).
Simple Model for Downstream Variation of Median Sediment Size in Chilean Rivers. — Yarko Niño; 128(10), 934-41 (2002).
Revisited Analysis of Pressure Drop in Flow through Crushed Rocks. — J. Legrand; 128(11), 1027-31 (2002).

Montana

Case Study: Channel Stability of the Missouri River, Eastern Montana. — Andrew Simon, Robert E. Thomas, Andrea Curini, and F. Douglas Shields, Jr.; 128(10), 880-90 (2002).

Morphology

Coupled and Decoupled Numerical Modeling of Flow and Morphological Evolution in Alluvial Rivers. — Zhixian Cao, Rodney Day, and Shinji Egashira; 128(3), 306-21 (2002).

Navigation

Unsteady Bed Shear Stresses Induced by Navigation: Laboratory Observations. — José F. Rodríguez, David M. Admiraal, Fabián López, and Marcelo H. García; 128(5), 515-26 (2002).

Netherlands

Case Study: Bed Resistance of Rhine River during 1998 Flood. — P. Y. Julien, G. J. Klaassen, W. B. M. Ten Brinke, and A. W. E. Wilbers; 128(12), 1042-50 (2002).

Network analysis

Fuzzy Approach for Analysis of Pipe Networks. — Roberto Revelli and Luca Ridolfi; 128(1), 93-101 (2002).

Neural networks

Prediction of Sediment Load Concentration in Rivers using Artificial Neural Network Model. — H. M. Nagy, K. Watanabe, and M. Hirano; 128(6), 588-95 (2002).

Nonlinear programming

Fuzzy Approach for Analysis of Pipe Networks. — Roberto Revelli and Luca Ridolfi; 128(1), 93-101 (2002).

North America

Field Investigation of Frazil Jam Evolution: A Case Study. — Jueyi Sui, Bryan W. Karney, Zhaochu Sun, and Desheng Wang; 128(8), 781-7 (2002).

Numerical analysis

Solution for Flow Rates across the Wellbore in a Two-Zone Confined Aquifer. — Shaw-Yang Yang and Hund-Der Yeh; 128(2), 175-83 (2002).

Numerical models

Flood Discharge Prediction using Two-Dimensional Inverse Modeling. — S. Sulzer, P. Rutschmann, and W. Kinzelbach; 128(1), 46-54 (2002).
Three-Dimensional Numerical Study of Flows in Open-Channel Junctions. — Jianchun Huang, Larry J. Weber, and Yong G. Lai; 128(3), 268-80 (2002).
Coupled and Decoupled Numerical Modeling of Flow and Morphological Evolution in Alluvial Rivers. — Zhixian Cao, Rodney Day, and Shinji Egashira; 128(3), 306-21 (2002).
Case Study: Malpasset Dam-Break Simulation using a Two-Dimensional Finite Volume Method. — Alessandro Valiani, Valerio Caleffi, and Andrea Zanni; 128(5), 460-72 (2002).
Numerical Modeling of Bed Evolution in Channel Bends. — Ahmed A. Kassem and M. Hanif Chaudhry; 128(5), 507-14 (2002).
Volume of Fluid Model for Turbulence Numerical Simulation of Stepped Spillway Overflow. — Qun Chen, Guangqing Dai, and Haowu Liu; 128(7), 683-8 (2002).
Effect of Applying Different Distribution Shapes for Velocities and Pressure on Simulation of Curved Open Channels. — Haitham Kamal Ghamry and Peter M. Steffler; 128(11), 969-82 (2002).
Averaging Pore Statistics of Two-Dimensional Images for Predicting Permeability. — W. Chad Vaughan, Dale H. Easley, and Dawn L. Lavoie; 128(11), 1002-7 (2002).

Offshore drilling

Modeling Underwater Oil/Gas Jets and Plumes: Comparison with Field Data. — Poojitha D. Yapa and Hao Xie; 128(9), 855-60 (2002).

Oil

Modeling Underwater Oil/Gas Jets and Plumes: Comparison with Field Data. — Poojitha D. Yapa and Hao Xie; 128(9), 855-60 (2002).

One-dimensional flow

Dam Break in Channels with 90° Bend. — S. Soares Frazão and Y. Zech; 128(11), 956-68 (2002).

Open channel flow

Open Channel Flow Resistance. — Ben Chie Yen; 128(1), 20-39 (2002).
Fluctuations of Suspended Sediment Concentration and Turbulent Sediment Fluxes in an Open-Channel Flow. — Vladimir I. Nikora and Derek G. Goring; 128(2), 214-24 (2002).
Measurement of Small Discharges in Open Channels by Slit Weir. — Ismail Aydin, A. Metin Ger, and Onur Hincal; 128(2), 234-7 (2002).
Three-Dimensional Numerical Study of Flows in Open-Channel Junctions. — Jianchun Huang, Larry J. Weber, and Yong G. Lai; 128(3), 268-80 (2002).
Stability and Accuracy of Weighted Four-Point Implicit Finite Difference Schemes for Open Channel Flow. — Maurizio Venutelli; 128(3), 281-8 (2002).
Maximum Velocity and Regularities in Open-Channel Flow. — Chao-Lin Chiu and Ning-Chien Tung; 128(4), 390-8 (2002).
Hydraulic Jumps on Corrugated Beds. — S. A. Ead and N. Rajaratnam; 128(7), 656-63 (2002).
Subcritical 90° Equal-Width Open-Channel Dividing Flow. — Chung-Chieh Hsu, Chii-Jau Tang, Wen-Jung Lee, and Mon-Yi Shieh; 128(7), 716-20 (2002).
Dynamic Model for Subcritical Combining Flows in Channel Junctions. — Shazy Shabayek, Peter Steffler, and F. E. Hicks; 128(9), 821-8 (2002).
Rough Wall Boundary Layer on Plates in Open Channels. — Ram Balachandar and V. C. Patel; 128(10), 947-51 (2002).
Effect of Applying Different Distribution Shapes for Velocities and Pressure on Simulation of Curved Open Channels. — Haitham Kamal Ghamry and Peter M. Steffler; 128(11), 969-82 (2002).
Flow in Open-Channel Embayments. — Kazumasa Mizumura and Masashige Yamasaka; 128(12), 1098-101 (2002).

Open channels

Open Channel Flow Resistance. — Ben Chie Yen; 128(1), 20-39 (2002).
Stability and Erosion in Grassed Channels. — Jamal M. V. Samani and Nicholas Kouwen; 128(1), 40-5 (2002).
Wave Generation in Open Channels by Vortex Shedding from Channel Obstructions. — Laura Zima and Norbert L. Ackermann; 128(6), 596-603 (2002).

Optimization

Mitigation of Salinity Intrusion in Well-mixed Estuaries by Optimization of Freshwater Diversion Rates. — Brett F. Sanders and Michael Piasecki; 128(1), 64-77 (2002).
Fuzzy Approach for Analysis of Pipe Networks. — Roberto Revelli and Luca Ridolfi; 128(1), 93-101 (2002).
Well Loss Estimation: Variable Pumping Replacing Step Drawdown Test. — Sushil K. Singh; 128(3), 343-8 (2002).

Oregon

Simplified Model for Assessing Meander Bend Migration Rates. — W. Roy Richardson; 128(12), 1094-7 (2002).

Oscillations

Hybrid Finite-Difference Scheme for Solving the Dispersion Equation. — Tung-Lin Tsai, Jinn-Chuang Yang, and Liang-Hsiung Huang; 128(1), 78-86 (2002).
Quantitative Comparison of Models for Barotropic Response of Homogeneous Basins. — Francisco J. Rueda and S. Geoffrey Schladow; 128(2), 201-13 (2002).
Transient Flow in a Rapidly Filling Horizontal Pipe Containing Trapped Air. — F. Zhou, F. E. Hicks, and P. M. Steffler; 128(6), 625-34 (2002).

Outfall sewers

Field Observations of Ipanema Beach Outfall. — João L. B. Carvalho, Philip J. W. Roberts, and João Roldão; 128(2), 151-60 (2002).

Outflows

Effects of Free Outflow in Rising Mains with Air Chamber. — Antonio Rosario Di Santo, Umberto Fratino, Vito Iacobellis, and Alberto Ferruccio Piccinni; 128(11), 992-1001 (2002).

Overflow

Volume of Fluid Model for Turbulence Numerical Simulation of Stepped Spillway Overflow. — Qun Chen, Guangqing Dai, and Haowu Liu; 128(7), 683-8 (2002).
Velocity and Turbulence Measurements for Two Overbank Flow Events in River Severn. — K. Babaeyan-Koopaei, D. A. Ervine, P. A. Carling, and Z. Cao; 128(10), 891-900 (2002).

Overland flow

Dam Break in Channels with 90° Bend. — S. Soares Frazão and Y. Zech; 128(11), 956-68 (2002).

Overload flow
Observations of Air–Water Interaction in a Rapidly Filling Horizontal Pipe. — F. Zhou, F. E. Hicks, and P. M. Steffler; 128(6), 635-9 (2002).

Overtopping
Overtopping Breaching of Noncohesive Homogeneous Embankments. — Stephen E. Coleman, Darryl P. Andrews, and M. Grant Webby; 128(9), 829-38 (2002).

Parameters
Lateral Weir Flow Model using a Curve Fitting Analysis. — Yilmaz Muslu; 128(7), 712-5 (2002).
Aquifer Boundaries and Parameter Identification Simplified. — Sushil K. Singh; 128(8), 774-80 (2002).

Parametric hydrology
Parametric Analysis of Water-Hammer Effects in Small Hydro Schemes. — Helena Ramos and A. Betâmio de Almeida; 128(7), 689-96 (2002).

Particle motion
Stochastic Prediction of Sediment Transport in Sand-Gravel Bed Rivers. — Maarten G. Kleinhans and Leo C. van Rijn; 128(4), 412-25 (2002).

Performance characteristics
Effect of Speed on the Performance Characteristics of a Centrifugal Slurry Pump. — B. K. Gandhi, S. N. Singh, and V. Seshadri; 128(2), 225-33 (2002).

Permeability
Averaging Pore Statistics of Two-Dimensional Images for Predicting Permeability. — W. Chad Vaughan, Dale H. Easley, and Dawn L. Lavoie; 128(11), 1002-7 (2002).

Permeameters
Averaging Pore Statistics of Two-Dimensional Images for Predicting Permeability. — W. Chad Vaughan, Dale H. Easley, and Dawn L. Lavoie; 128(11), 1002-7 (2002).

Pipe networks
Fuzzy Approach for Analysis of Pipe Networks. — Roberto Revelli and Luca Ridolfi; 128(1), 93-101 (2002).

Pipelines
Extended-Period Analysis with a Transient Model. — Yves R. Filion and Bryan W. Karney; 128(6), 616-24 (2002).
Leak Detection in Pipelines using the Damping of Fluid Transients. — Xiao-Jian Wang, Martin F. Lambert, Angus R. Simpson, James A. Liggett, and John P. Vítkovský; 128(7), 697-711 (2002).
Simple Guide for Design of Air Vessels for Water Hammer Protection of Pumping Lines. — D. Stephenson; 128(8), 792-7 (2002).

Pipes
Efficient Treatment of the Vardy–Brown Unsteady Shear in Pipe Transients. — Mohamed S. Ghidaoui and Sameh Mansour; 128(1), 102-12 (2002).
Unsteady Flow in Hydraulic Networks with Polymeric Additional Pipe. — Giuseppe Pezzinga; 128(2), 238-44 (2002).
Transient Flow in a Rapidly Filling Horizontal Pipe Containing Trapped Air. — F. Zhou, F. E. Hicks, and P. M. Steffler; 128(6), 625-34 (2002).

Plates
Rough Wall Boundary Layer on Plates in Open Channels. — Ram Balachandar and V. C. Patel; 128(10), 947-51 (2002).

Plumes
Modeling Underwater Oil/Gas Jets and Plumes: Comparison with Field Data. — Poojitha D. Yapa and Hao Xie; 128(9), 855-60 (2002).

Polymers
Unsteady Flow in Hydraulic Networks with Polymeric Additional Pipe. — Giuseppe Pezzinga; 128(2), 238-44 (2002).

Porous media
Spreading of a Gravity Current over a Permeable Surface. — B. M. Marino and L. P. Thomas; 128(5), 527-33 (2002).
Revisited Analysis of Pressure Drop in Flow through Crushed Rocks. — J. Legrand; 128(11), 1027-31 (2002).

Predictions
Stochastic Prediction of Sediment Transport in Sand-Gravel Bed Rivers. — Maarten G. Kleinhans and Leo C. van Rijn; 128(4), 412-25 (2002).

Pressure vessels
Simple Guide for Design of Air Vessels for Water Hammer Protection of Pumping Lines. — D. Stephenson; 128(8), 792-7 (2002).

Pressures
Simple Guide for Design of Air Vessels for Water Hammer Protection of Pumping Lines. — D. Stephenson; 128(8), 792-7 (2002).

Probability
Pickup Probability of Sediment under Log-Normal Velocity Distribution. — Fu-Chun Wu and Yao-Cheng Lin; 128(4), 438-42 (2002).
Probability of Individual Grain Movement and Threshold Condition. — Clinton L. Dancey, Panayiotis Diplas, Athanasios Papanicolaou, and Mahesh Bala; 128(12), 1069-75 (2002).

Probability distribution
Maximum Velocity and Regularities in Open-Channel Flow. — Chao-Lin Chiu and Ning-Chien Tung; 128(4), 390-8 (2002).
Deterministic Advection-Diffusion Model Based on Markov Processes. — João S. Ferreira and Manuel Costa; 128(4), 399-411 (2002).

Public transportation
Case Study: Mass Transport Mechanism in Kyunggi Bay around Han River Mouth, Korea. — Kyeong Park, Jeong-Hwan Oh, Hong-Sun Kim, and Hyo-Hyuc Im; 128(3), 257-67 (2002).

Pump turbines
Parametric Analysis of Water-Hammer Effects in Small Hydro Schemes. — Helena Ramos and A. Betâmio de Almeida; 128(7), 689-96 (2002).

Pumping stations
Effects of Free Outflow in Rising Mains with Air Chamber. — Antonio Rosario Di Santo, Umberto Fratino, Vito Iacobellis, and Alberto Ferruccio Piccinni; 128(11), 992-1001 (2002).

Pumping tests
Well Loss Estimation: Variable Pumping Replacing Step Drawdown Test. — Sushil K. Singh; 128(3), 343-8 (2002).

Pumps
Effect of Speed on the Performance Characteristics of a Centrifugal Slurry Pump. — B. K. Gandhi, S. N. Singh, and V. Seshadri; 128(2), 225-33 (2002).
Aquifer Boundaries and Parameter Identification Simplified. — Sushil K. Singh; 128(8), 774-80 (2002).

Rainfall
Modeling of Conjunctive Two-Dimensional Surface-Three-Dimensional Subsurface Flows. — Masaru Morita and Ben Chie Yen; 128(2), 184-200 (2002).

Remedial action
Mitigation of Salinity Intrusion in Well-mixed Estuaries by Optimization of Freshwater Diversion Rates. — Brett F. Sanders and Michael Piasecki; 128(1), 64-77 (2002).

Repairing
Case Study: Dillon Dam Trashrack Damage. — H. T. Falvey and J. H. Weldon; 128(2), 144-50 (2002).

Reservoirs
Case Study on Hydraulic Performance of Brent Reservoir Siphon Spillway. — K. Babaeyan-Koopaei, E. M. Valentine, and D. Alan Ervine; 128(6), 562-7 (2002).
Extended-Period Analysis with a Transient Model. — Yves R. Filion and Bryan W. Karney; 128(6), 616-24 (2002).

Rheological properties
Unified Modeling of Fluid or Granular Flows on Dam-Break Case. — Richard Frenette, Thomas Zimmermann, and Dominique Eyheramendy; 128(3), 299-305 (2002).

River beds
Grain Sorting Processes. — Roni P. Hunziker and Martin N. R. Jaeggi; 128(12), 1060-8 (2002).

River flow
Stochastic Variability of Fluvial Hydraulic Geometry: Mississippi and Red Rivers. — Daniel L. Buhman, Timothy K. Gates, and Chester C. Watson; 128(4), 426-37 (2002).

Rivers
New Method for Meander-Loop Cutoffs. — Shaolong Xiong, Zhaocai Xu, and Wenjie Wang; 128(3), 354-8 (2002).
Measurement of Bed Load Velocity using an Acoustic Doppler Current Profiler. — Colin D. Rennie, Robert G. Millar, and Michael A. Church; 128(5), 473-83 (2002).
Prediction of Sediment Load Concentration in Rivers using Artificial Neural Network Model. — H. M. Nagy, K. Watanabe, and M. Hirano; 128(6), 588-95 (2002).
Field Investigation of Frazil Jam Evolution: A Case Study. — Jueyi Sui, Bryan W. Karney, Zhaochu Sun, and Desheng Wang; 128(8), 781-7 (2002).
Analytical Solutions for Unsteady Transport Dispersion of Nonconservative Pollutant with Time-Dependent Periodic Waste Discharge Concentration. — V. P. Shukla; 128(9), 866-9 (2002).
Velocity and Turbulence Measurements for Two Overbank Flow Events in River Severn. — K. Babaeyan-Koopaei, D. A. Ervine, P. A. Carling, and Z. Cao; 128(10), 891-900 (2002).
Simple Model for Downstream Variation of Median Sediment Size in Chilean Rivers. — Yarko Niño; 128(10), 934-41 (2002).
Simplified Model for Assessing Meander Bend Migration Rates. — W. Roy Richardson; 128(12), 1094-7 (2002).

Rocks
Revisited Analysis of Pressure Drop in Flow through Crushed Rocks. — J. Legrand; 128(11), 1027-31 (2002).

Roughness
Relatively Rough Flow Resistance Equations. — Graeme M. Smart, Maurice J. Duncan, and Jeremy M. Walsh; 128(6), 568-78 (2002).
Apparent Roughness in Wave–Current Flow: Implication for Coastal Studies. — Alexander Perlin and Eliezer Kit; 128(8), 729-41 (2002).
Rough Wall Boundary Layer on Plates in Open Channels. — Ram Balachandar and V. C. Patel; 128(10), 947-51 (2002).

Roughness coefficients
Fuzzy Approach for Analysis of Pipe Networks. — Roberto Revelli and Luca Ridolfi; 128(1), 93-101 (2002).

Routing
Extended-Period Analysis with a Transient Model. — Yves R. Filion and Bryan W. Karney; 128(6), 616-24 (2002).

Salinity
Mitigation of Salinity Intrusion in Well-mixed Estuaries by Optimization of Freshwater Diversion Rates. — Brett F. Sanders and Michael Piasecki; 128(1), 64-77 (2002).
Case Study: Mass Transport Mechanism in Kyunggi Bay around Han River Mouth, Korea. — Kyeong Park, Jeong-Hwan Oh, Hong-Sun Kim, and Hyo-Hyuc Im; 128(3), 257-67 (2002).

Saltation
Continuous Saltating Process of Multiple Sediment Particles. — Hong-Yuan Lee, Jiing-Yun You, and Ying-Tien Lin; 128(4), 443-50 (2002).

Sampling
Evaluation and Improvement of Bed Load Discharge Formulas based on Helley–Smith Sampling in an Alpine Gravel Bed River. — Helmut M. Habersack and Jonathan B. Laronne; 128(5), 484-99 (2002).

Scour
Shields' Entrainment Criterion in Bridge Hydraulics. — Willi H. Hager and Giuseppe Oliveto; 128(5), 538-42 (2002).
Channel-Bed Scour with High versus Low Deflectors. — Douglas M. Thompson; 128(6), 640-3 (2002).
Temporal Evolution of Clear-Water Pier and Abutment Scour. — Giuseppe Oliveto and Willi H. Hager; 128(9), 811-20 (2002).
Local Scour Associated with Angled Spur Dikes. — Roger A. Kuhnle, Carlos V. Alonso, and F. Douglas Shields, Jr.; 128(12), 1087-93 (2002).

Sediment
Discrete Particle Model for Analyzing Bedform Development. — Yarko Niño, Alonso Atala, Manuel Barahona, and David Aracena; 128(4), 381-9 (2002).
Pickup Probability of Sediment under Log-Normal Velocity Distribution. — Fu-Chun Wu and Yao-Cheng Lin; 128(4), 438-42 (2002).
Continuous Saltating Process of Multiple Sediment Particles. — Hong-Yuan Lee, Jiing-Yun You, and Ying-Tien Lin; 128(4), 443-50 (2002).
Temporal Evolution of Clear-Water Pier and Abutment Scour. — Giuseppe Oliveto and Willi H. Hager; 128(9), 811-20 (2002).
Simple Model for Downstream Variation of Median Sediment Size in Chilean Rivers. — Yarko Niño; 128(10), 934-41 (2002).
Averaging Pore Statistics of Two-Dimensional Images for Predicting Permeability. — W. Chad Vaughan, Dale H. Easley, and Dawn L. Lavoie; 128(11), 1002-7 (2002).
Sediment Removal Efficiency of Vortex Chamber Type Sediment Extractor. — Mohammad Athar, Umesh C. Kothyari, and Ramchandra J. Garde; 128(12), 1051-9 (2002).
Grain Sorting Processes. — Roni P. Hunziker and Martin N. R. Jaeggi; 128(12), 1060-8 (2002).
Probability of Individual Grain Movement and Threshold Condition. — Clinton L. Dancey, Panayiotis Diplas, Athanasios Papanicolaou, and Mahesh Bala; 128(12), 1069-75 (2002).

Sediment concentration
Fluctuations of Suspended Sediment Concentration and Turbulent Sediment Fluxes in an Open-Channel Flow. — Vladimir I. Nikora and Derek G. Goring; 128(2), 214-24 (2002).

Sediment discharge
Prediction of Sediment Load Concentration in Rivers using Artificial Neural Network Model. — H. M. Nagy, K. Watanabe, and M. Hirano; 128(6), 588-95 (2002).

Sediment transfer
Stochastic Prediction of Sediment Transport in Sand-Gravel Bed Rivers. — Maarten G. Kleinhans and Leo C. van Rijn; 128(4), 412-25 (2002).

Sediment transport
Fluctuations of Suspended Sediment Concentration and Turbulent Sediment Fluxes in an Open-Channel Flow. — Vladimir I. Nikora and Derek G. Goring; 128(2), 214-24 (2002).
Simulation of Bed-Load Dispersion Process. — Shou-young Chang and Chin-lien Yen; 128(3), 331-42 (2002).
Stochastic Incipient Motion Criterion for Spheres under Various Bed Packing Conditions. — A. N. Papanicolaou, P. Diplas, N. Evaggelopoulos, and S. Fotopoulos; 128(4), 369-80 (2002).
Measurement of Bed Load Velocity using an Acoustic Doppler Current Profiler. — Colin D. Rennie, Robert G. Millar, and Michael A. Church; 128(5), 473-83 (2002).
Evaluation and Improvement of Bed Load Discharge Formulas based on Helley–Smith Sampling in an Alpine Gravel Bed River. — Helmut M. Habersack and Jonathan B. Laronne; 128(5), 484-99 (2002).
Shields' Entrainment Criterion in Bridge Hydraulics. — Willi H. Hager and Giuseppe Oliveto; 128(5), 538-42 (2002).
St. Venant–Exner Equations for Near-Critical and Transcritical Flows. — D. A. Lyn and M. Altinakar; 128(6), 579-87 (2002).
Prediction of Sediment Load Concentration in Rivers using Artificial Neural Network Model. — H. M. Nagy, K. Watanabe, and M. Hirano; 128(6), 588-95 (2002).
Modeling Nonuniform Suspended Sediment Transport in Alluvial Rivers. — Qing-Chao Guo and Yee-Chung Jin; 128(9), 839-47 (2002).
Exponential Formula for Bedload Transport. — Nian-Sheng Cheng; 128(10), 942-6 (2002).
Bedload Layer Thickness and Disturbance Depth in Gravel Bed Streams. — Paul DeVries; 128(11), 983-91 (2002).

Sensitivity analysis
Three-Dimensional Hydrodynamics of Meandering Compound Channels. — H. Morvan, G. Pender, N. G. Wright, and D. A. Ervine; 128(7), 674-82 (2002).

Sewer pipes
Observations of Air–Water Interaction in a Rapidly Filling Horizontal Pipe. — F. Zhou, F. E. Hicks, and P. M. Steffler; 128(6), 635-9 (2002).

Sewers
Undular Hydraulic Jumps in Circular Conduits. — Rudy Gargano and Willi H. Hager; 128(11), 1008-13 (2002).
Supercritical Flow across Sewer Manholes. — Rudy Gargano and Willi H. Hager; 128(11), 1014-7 (2002).

Shallow water
Finite-Volume Model for Shallow-Water Flooding of Arbitrary Topography. — Scott F. Bradford and Brett F. Sanders; 128(3), 289-98 (2002).
Gravitational and Shear Instabilities in Compound and Composite Channels. — A. A. Kolyshkin and M. S. Ghidaoui; 128(12), 1076-86 (2002).

Shear
Efficient Treatment of the Vardy–Brown Unsteady Shear in Pipe Transients. — Mohamed S. Ghidaoui and Sameh Mansour; 128(1), 102-12 (2002).

Shear flow
Gravitational and Shear Instabilities in Compound and Composite Channels. — A. A. Kolyshkin and M. S. Ghidaoui; 128(12), 1076-86 (2002).

Shear forces
Dynamic Model for Subcritical Combining Flows in Channel Junctions. — Shazy Shabayek, Peter Steffler, and F. E. Hicks; 128(9), 821-8 (2002).

Shear stress
Unsteady Bed Shear Stresses Induced by Navigation: Laboratory Observations. — José F. Rodríguez, David M. Admiraal, Fabián López, and Marcelo H. García; 128(5), 515-26 (2002).
Exponential Formula for Bedload Transport. — Nian-Sheng Cheng; 128(10), 942-6 (2002).

Simulation
Flood Discharge Prediction using Two-Dimensional Inverse Modeling. — S. Sulzer, P. Rutschmann, and W. Kinzelbach; 128(1), 46-54 (2002).
Simulation of Bed-Load Dispersion Process. — Shou-young Chang and Chin-lien Yen; 128(3), 331-42 (2002).
Case Study: Malpasset Dam-Break Simulation using a Two-Dimensional Finite Volume Method. — Alessandro Valiani, Valerio Caleffi, and Andrea Zanni; 128(5), 460-72 (2002).
Effect of Applying Different Distribution Shapes for Velocities and Pressure on Simulation of Curved Open Channels. — Haitham Kamal Ghamry and Peter M. Steffler; 128(11), 969-82 (2002).

Siphons
Case Study on Hydraulic Performance of Brent Reservoir Siphon Spillway. — K. Babaeyan-Koopaei, E. M. Valentine, and D. Alan Ervine; 128(6), 562-7 (2002).

Skewness
Persistence of Skewness in Longitudinal Dispersion Data: Can the Dead Zone Model Explain It After All? — Bernhard H. Schmid; 128(9), 848-54 (2002).

Slopes
$k-\varepsilon$ Turbulence Modeling of Density Currents Developing Two Dimensionally on a Slope. — Sung-Uk Choi and Marcelo H. García; 128(1), 55-63 (2002).

Slurries
Effect of Speed on the Performance Characteristics of a Centrifugal Slurry Pump. — B. K. Gandhi, S. N. Singh, and V. Seshadri; 128(2), 225-33 (2002).

Solutes
Persistence of Skewness in Longitudinal Dispersion Data: Can the Dead Zone Model Explain It After All? — Bernhard H. Schmid; 128(9), 848-54 (2002).

Speed
Effect of Speed on the Performance Characteristics of a Centrifugal Slurry Pump. — B. K. Gandhi, S. N. Singh, and V. Seshadri; 128(2), 225-33 (2002).

Spillways
Case Study on Hydraulic Performance of Brent Reservoir Siphon Spillway. — K. Babaeyan-Koopaei, E. M. Valentine, and D. Alan Ervine; 128(6), 562-7 (2002).
Volume of Fluid Model for Turbulence Numerical Simulation of Stepped Spillway Overflow. — Qun Chen, Guangqing Dai, and Haowu Liu; 128(7), 683-8 (2002).

St. Lawrence River
Field Investigation of Frazil Jam Evolution: A Case Study. — Jueyi Sui, Bryan W. Karney, Zhaochu Sun, and Desheng Wang; 128(8), 781-7 (2002).

Stability
Stability and Erosion in Grassed Channels. — Jamal M. V. Samani and Nicholas Kouwen; 128(1), 40-5 (2002).
Stability and Accuracy of Weighted Four-Point Implicit Finite Difference Schemes for Open Channel Flow. — Maurizio Venutelli; 128(3), 281-8 (2002).

Standard deviation
Relatively Rough Flow Resistance Equations. — Graeme M. Smart, Maurice J. Duncan, and Jeremy M. Walsh; 128(6), 568-78 (2002).

Stochastic models
Stochastic Variability of Fluvial Hydraulic Geometry: Mississippi and Red Rivers. — Daniel L. Buhman, Timothy K. Gates, and Chester C. Watson; 128(4), 426-37 (2002).

Stochastic processes
Stochastic Incipient Motion Criterion for Spheres under Various Bed Packing Conditions. — A. N. Papanicolaou, P. Diplas, N. Evaggelopoulos, and S. Fotopoulos; 128(4), 369-80 (2002).

Storm runoff
Sizing Stormwater Infiltration Structures. — A. Osman Akan; 128(5), 534-7 (2002).

Stormwater management
Sizing Stormwater Infiltraion Structures. — A. Osman Akan; 128(5), 534-7 (2002).

Streamflow
Uncertainty in Water Surface Profile of Buried Stream Flowing under Coarse Material. — David Hansen and Rizwanul Bari; 128(8), 761-73 (2002).

Streams
Longitudinal Dispersion Coefficient in Single-Channel Streams. — Z.-Q. Deng, L. Bengtsson, V. P. Singh, and D. D. Adrian; 128(10), 901-16 (2002).

Submerged jets
Modeling Underwater Oil/Gas Jets and Plumes: Comparison with Field Data. — Poojitha D. Yapa and Hao Xie; 128(9), 855-60 (2002).

Submerging
Surface Wave Forces Acting on Submerged Logs. — Nicholas P. Wallerstein, Carlos V. Alonso, Sean J. Bennett, and Colin R. Thorne; 128(3), 349-53 (2002).

Subsurface flow
Modeling of Conjunctive Two-Dimensional Surface-Three-Dimensional Subsurface Flows. — Masaru Morita and Ben Chie Yen; 128(2), 184-200 (2002).

Supercritical flow
Flow Characteristics at Drops. — M. R. Chamani and M. K. Beirami; 128(8), 788-91 (2002).
Supercritical Flow across Sewer Manholes. — Rudy Gargano and Willi H. Hager; 128(11), 1014-7 (2002).

Surface flow
Modeling of Conjunctive Two-Dimensional Surface-Three-Dimensional Subsurface Flows. — Masaru Morita and Ben Chie Yen; 128(2), 184-200 (2002).

Surface water
Surface Wave Forces Acting on Submerged Logs. — Nicholas P. Wallerstein, Carlos V. Alonso, Sean J. Bennett, and Colin R. Thorne; 128(3), 349-53 (2002).

Surge
Analytical Solution to the Zero-Inertia Problem for Surge Flow Phenomena in Nonprismatic Channels. — G. H. Schmitz, R. Liedl, and R. E. Volker; 128(6), 604-15 (2002).

Suspended sediments
Fluctuations of Suspended Sediment Concentration and Turbulent Sediment Fluxes in an Open-Channel Flow. — Vladimir I. Nikora and Derek G. Goring; 128(2), 214-24 (2002).
Modeling Nonuniform Suspended Sediment Transport in Alluvial Rivers. — Qing-Chao Guo and Yee-Chung Jin; 128(9), 839-47 (2002).

Switzerland
Temporal Evolution of Clear-Water Pier and Abutment Scour. — Giuseppe Oliveto and Willi H. Hager; 128(9), 811-20 (2002).

Temperature effects
Case Study: Mass Transport Mechanism in Kyunggi Bay around Han River Mouth, Korea. — Kyeong Park, Jeong-Hwan Oh, Hong-Sun Kim, and Hyo-Hyuc Im; 128(3), 257-67 (2002).

Three-dimensional flow
Modeling of Conjunctive Two-Dimensional Surface-Three-Dimensional Subsurface Flows. — Masaru Morita and Ben Chie Yen; 128(2), 184-200 (2002).

Three-dimensional models
Quantitative Comparison of Models for Barotropic Response of Homogeneous Basins. — Francisco J. Rueda and S. Geoffrey Schladow; 128(2), 201-13 (2002).
Three-Dimensional Numerical Study of Flows in Open-Channel Junctions. — Jianchun Huang, Larry J. Weber, and Yong G. Lai; 128(3), 268-80 (2002).

Tidals
Tide-Induced Water Table Fluctuations in Coastal Aquifers Bounded by Rhythmic Shorelines. — L. Li, P. Dong, and D. A. Barry; 128(10), 925-33 (2002).

Tides
Case Study: Mass Transport Mechanism in Kyunggi Bay around Han River Mouth, Korea. — Kyeong Park, Jeong-Hwan Oh, Hong-Sun Kim, and Hyo-Hyuc Im; 128(3), 257-67 (2002).

Topography
Finite-Volume Model for Shallow-Water Flooding of Arbitrary Topography. — Scott F. Bradford and Brett F. Sanders; 128(3), 289-98 (2002).

Transcritical flow
St. Venant–Exner Equations for Near-Critical and Transcritical Flows. — D. A. Lyn and M. Altinakar; 128(6), 579-87 (2002).

Transient flow
Transient Flow in a Rapidly Filling Horizontal Pipe Containing Trapped Air. — F. Zhou, F. E. Hicks, and P. M. Steffler; 128(6), 625-34 (2002).
Leak Detection in Pipelines using the Damping of Fluid Transients. — Xiao-Jian Wang, Martin F. Lambert, Angus R. Simpson, James A. Liggett, and John P. Vítkovský; 128(7), 697-711 (2002).

Transients
Efficient Treatment of the Vardy–Brown Unsteady Shear in Pipe Transients. — Mohamed S. Ghidaoui and Sameh Mansour; 128(1), 102-12 (2002).

Transport rate
Exponential Formula for Bedload Transport. — Nian-Sheng Cheng; 128(10), 942-6 (2002).

Turbulence
$k-\varepsilon$ Turbulence Modeling of Density Currents Developing Two Dimensionally on a Slope. — Sung-Uk Choi and Marcelo H. García; 128(1), 55-63 (2002).
Despiking Acoustic Doppler Velocimeter Data. — Derek G. Goring and Vladimir I. Nikora; 128(1), 117-26 (2002).
Fluctuations of Suspended Sediment Concentration and Turbulent Sediment Fluxes in an Open-Channel Flow. — Vladimir I. Nikora and Derek G. Goring; 128(2), 214-24 (2002).
Stochastic Incipient Motion Criterion for Spheres under Various Bed Packing Conditions. — A. N. Papanicolaou, P. Diplas, N. Evaggelopoulos, and S. Fotopoulos; 128(4), 369-80 (2002).
Stochastic Prediction of Sediment Transport in Sand-Gravel Bed Rivers. — Maarten G. Kleinhans and Leo C. van Rijn; 128(4), 412-25 (2002).
Three-Dimensional Hydrodynamics of Meandering Compound Channels. — H. Morvan, G. Pender, N. G. Wright, and D. A. Ervine; 128(7), 674-82 (2002).
Volume of Fluid Model for Turbulence Numerical Simulation of Stepped Spillway Overflow. — Qun Chen, Guangqing Dai, and Haowu Liu; 128(7), 683-8 (2002).
Apparent Roughness in Wave–Current Flow: Implication for Coastal Studies. — Alexander Perlin and Eliezer Kit; 128(8), 729-41 (2002).

Velocity and Turbulence Measurements for Two Overbank Flow Events in River Severn. — K. Babaeyan-Koopaei, D. A. Ervine, P. A. Carling, and Z. Cao; 128(10), 891-900 (2002).
Applicability of Quasisteady and Axisymmetric Turbulence Models in Water Hammer. — Mohamed S. Ghidaoui, Sameh G. S. Mansour, and Ming Zhao; 128(10), 917-24 (2002).
Rough Wall Boundary Layer on Plates in Open Channels. — Ram Balachandar and V. C. Patel; 128(10), 947-51 (2002).

Turbulent boundary layers
Rough Wall Boundary Layer on Plates in Open Channels. — Ram Balachandar and V. C. Patel; 128(10), 947-51 (2002).

Two phase flow
Case Study on Hydraulic Performance of Brent Reservoir Siphon Spillway. — K. Babaeyan-Koopaei, E. M. Valentine, and D. Alan Ervine; 128(6), 562-7 (2002).

Two-dimensional flow
Modeling of Conjunctive Two-Dimensional Surface-Three-Dimensional Subsurface Flows. — Masaru Morita and Ben Chie Yen; 128(2), 184-200 (2002).
Dam Break in Channels with 90° Bend. — S. Soares Frazão and Y. Zech; 128(11), 956-68 (2002).

Two-dimensional models
Effect of Applying Different Distribution Shapes for Velocities and Pressure on Simulation of Curved Open Channels. — Haitham Kamal Ghamry and Peter M. Steffler; 128(11), 969-82 (2002).

Uncertainty analysis
Fuzzy Approach for Analysis of Pipe Networks. — Roberto Revelli and Luca Ridolfi; 128(1), 93-101 (2002).

United Kingdom
Velocity and Turbulence Measurements for Two Overbank Flow Events in River Severn. — K. Babaeyan-Koopaei, D. A. Ervine, P. A. Carling, and Z. Cao; 128(10), 891-900 (2002).

Unsteady flow
Efficient Treatment of the Vardy–Brown Unsteady Shear in Pipe Transients. — Mohamed S. Ghidaoui and Sameh Mansour; 128(1), 102-12 (2002).
Unsteady Flow in Hydraulic Networks with Polymeric Additional Pipe. — Giuseppe Pezzinga; 128(2), 238-44 (2002).
Numerical Modeling of Bed Evolution in Channel Bends. — Ahmed A. Kassem and M. Hanif Chaudhry; 128(5), 507-14 (2002).
Extended-Period Analysis with a Transient Model. — Yves R. Filion and Bryan W. Karney; 128(6), 616-24 (2002).
Applicability of Quasisteady and Axisymmetric Turbulence Models in Water Hammer. — Mohamed S. Ghidaoui, Sameh G. S. Mansour, and Ming Zhao; 128(10), 917-24 (2002).

Variability
Stochastic Variability of Fluvial Hydraulic Geometry: Mississippi and Red Rivers. — Daniel L. Buhman, Timothy K. Gates, and Chester C. Watson; 128(4), 426-37 (2002).

Vegetation
Hydraulic Resistance of Flow in Channels with Cylindrical Roughness. — Brian M. Stone and Hung Tao Shen; 128(5), 500-6 (2002).
Flow Velocity Measurements in Vegetated Channels. — F. G. Carollo, V. Ferro, and D. Termini; 128(7), 664-73 (2002).

Velocity
Despiking Acoustic Doppler Velocimeter Data. — Derek G. Goring and Vladimir I. Nikora; 128(1), 117-26 (2002).
An Experimental Study on Turbulent Circular Wall Jets. — Adrian Wing-Keung Law and Herlina; 128(2), 161-74 (2002).
Simulation of Bed-Load Dispersion Process. — Shou-young Chang and Chin-lien Yen; 128(3), 331-42 (2002).
Maximum Velocity and Regularities in Open-Channel Flow. — Chao-Lin Chiu and Ning-Chien Tung; 128(4), 390-8 (2002).
Three-Dimensional Hydrodynamics of Meandering Compound Channels. — H. Morvan, G. Pender, N. G. Wright, and D. A. Ervine; 128(7), 674-82 (2002).
Time-Averaged Mixing Behavior of Circular Jet in Counterflow: Velocity and Concentration Measurements. — K. M. Lam and C. H. C. Chan; 128(9), 861-5 (2002).
Velocity and Turbulence Measurements for Two Overbank Flow Events in River Severn. — K. Babaeyan-Koopaei, D. A. Ervine, P. A. Carling, and Z. Cao; 128(10), 891-900 (2002).
Flow in Open-Channel Embayments. — Kazumasa Mizumura and Masashige Yamasaka; 128(12), 1098-101 (2002).

Velocity distribution
Pickup Probability of Sediment under Log-Normal Velocity Distribution. — Fu-Chun Wu and Yao-Cheng Lin; 128(4), 438-42 (2002).

Velocity profile
Flow Velocity Measurements in Vegetated Channels. — F. G. Carollo, V. Ferro, and D. Termini; 128(7), 664-73 (2002).

Vertical cylinders
Wave Generation in Open Channels by Vortex Shedding from Channel Obstructions. — Laura Zima and Norbert L. Ackermann; 128(6), 596-603 (2002).

Viscosity
Horizontal Viscous Dam—Break Flow: Experiments and Theory. — Blaise Nsom; 128(5), 543-6 (2002).

Vortex shedding
Wave Generation in Open Channels by Vortex Shedding from Channel Obstructions. — Laura Zima and Norbert L. Ackermann; 128(6), 596-603 (2002).

Waste
Analytical Solutions for Unsteady Transport Dispersion of Nonconservative Pollutant with Time-Dependent Periodic Waste Discharge Concentration. — V. P. Shukla; 128(9), 866-9 (2002).

Wastewater
Field Observations of Ipanema Beach Outfall. — João L. B. Carvalho, Philip J. W. Roberts, and João Roldão; 128(2), 151-60 (2002).

Water circulation
Quantitative Comparison of Models for Barotropic Response of Homogeneous Basins. — Francisco J. Rueda and S. Geoffrey Schladow; 128(2), 201-13 (2002).

Water conduits
Undular Hydraulic Jumps in Circular Conduits. — Rudy Gargano and Willi H. Hager; 128(11), 1008-13 (2002).

Water discharge
Subcritical 90° Equal-Width Open-Channel Dividing Flow. — Chung-Chieh Hsu, Chii-Jau Tang, Wen-Jung Lee, and Mon-Yi Shieh; 128(7), 716-20 (2002).

Water hammer
Parametric Analysis of Water-Hammer Effects in Small Hydro Schemes. — Helena Ramos and A. Betâmio de Almeida; 128(7), 689-96 (2002).
Simple Guide for Design of Air Vessels for Water Hammer Protection of Pumping Lines. — D. Stephenson; 128(8), 792-7 (2002).
Applicability of Quasisteady and Axisymmetric Turbulence Models in Water Hammer. — Mohamed S. Ghidaoui, Sameh G. S. Mansour, and Ming Zhao; 128(10), 917-24 (2002).

Water infiltration
Sizing Stormwater Infiltration Structures. — A. Osman Akan; 128(5), 534-7 (2002).

Water pipelines
Effects of Free Outflow in Rising Mains with Air Chamber. — Antonio Rosario Di Santo, Umberto Fratino, Vito Iacobellis, and Alberto Ferruccio Piccinni; 128(11), 992-1001 (2002).

Water stops
Unified Modeling of Fluid or Granular Flows on Dam-Break Case. — Richard Frenette, Thomas Zimmermann, and Dominique Eyheramendy; 128(3), 299-305 (2002).

Water surface
Spreading of a Gravity Current over a Permeable Surface. — B. M. Marino and L. P. Thomas; 128(5), 527-33 (2002).

Water surface profiles
Uncertainty in Water Surface Profile of Buried Stream Flowing under Coarse Material. — David Hansen and Rizwanul Bari; 128(8), 761-73 (2002).

Water table
Tide-Induced Water Table Fluctuations in Coastal Aquifers Bounded by Rhythmic Shorelines. — L. Li, P. Dong, and D. A. Barry; 128(10), 925-33 (2002).

Water tunnels
Undular Hydraulic Jumps in Circular Conduits. — Rudy Gargano and Willi H. Hager; 128(11), 1008-13 (2002).

Water waves
Discrete Particle Model for Analyzing Bedform Development. — Yarko Niño, Alonso Atala, Manuel Barahona, and David Aracena; 128(4), 381-9 (2002).

Wave dispersion
Longitudinal Dispersion Coefficient in Single-Channel Streams. — Z.-Q. Deng, L. Bengtsson, V. P. Singh, and D. D. Adrian; 128(10), 901-16 (2002).

Wave generation
Wave Generation in Open Channels by Vortex Shedding from Channel Obstructions. — Laura Zima and Norbert L. Ackermann; 128(6), 596-603 (2002).

Wave reflection
Dam Break in Channels with 90° Bend. — S. Soares Frazão and Y. Zech; 128(11), 956-68 (2002).

Wave refraction

Dam Break in Channels with 90° Bend. — S. Soares Frazão and Y. Zech; 128(11), 956-68 (2002).

Waves

Apparent Roughness in Wave–Current Flow: Implication for Coastal Studies. — Alexander Perlin and Eliezer Kit; 128(8), 729-41 (2002).

Weirs

Measurement of Small Discharges in Open Channels by Slit Weir. — Ismail Aydin, A. Metin Ger, and Onur Hincal; 128(2), 234-7 (2002).

Lateral Weir Flow Model using a Curve Fitting Analysis. — Yilmaz Muslu; 128(7), 712-5 (2002).

Wells

Well Loss Estimation: Variable Pumping Replacing Step Drawdown Test. — Sushil K. Singh; 128(3), 343-8 (2002).

Wind waves

Discrete Particle Model for Analyzing Bedform Development. — Yarko Niño, Alonso Atala, Manuel Barahona, and David Aracena; 128(4), 381-9 (2002).

Author Index

Ackermann, Norbert L.
Wave Generation in Open Channels by Vortex Shedding from Channel Obstructions. —Laura Zima and Norbert L. Ackermann; 128(6), 596-603 (2002).

Ade, F.
Closure to "Turbulent Open-Channel Flow in Circular Corrugated Culverts" by S. A. Ead, N. Rajaratnam, C. Katopodis, and F. Ade. —S. A. Ead, N. Rajaratnam, C. Katopodis, and F. Ade; 128(5), 549 (2002).

Admiraal, David M.
Unsteady Bed Shear Stresses Induced by Navigation: Laboratory Observations. —José F. Rodríguez, David M. Admiraal, Fabián López, and Marcelo H. García; 128(5), 515-26 (2002).

Adrian, D. D.
Longitudinal Dispersion Coefficient in Single-Channel Streams. —Z.-Q. Deng, L. Bengtsson, V. P. Singh, and D. D. Adrian; 128(10), 901-16 (2002).

Ahmed, I.
Closure to "Calibration Assessment and Data Collection for Water Distribution Networks" by K. E. Lansey, W. El-Shorbagy, I. Ahmed, J. Araujo, and C. T. Haan. —K. E. Lansey, I. Ahmed, and W. El-Shorbagy; 128(12), 1106-7 (2002).

Akan, A. Osman
Sizing Stormwater Infiltration Structures. —A. Osman Akan; 128(5), 534-7 (2002).

Alonso, Carlos V.
Surface Wave Forces Acting on Submerged Logs. —Nicholas P. Wallerstein, Carlos V. Alonso, Sean J. Bennett, and Colin R. Thorne; 128(3), 349-53 (2002).
Local Scour Associated with Angled Spur Dikes. —Roger A. Kuhnle, Carlos V. Alonso, and F. Douglas Shields, Jr.; 128(12), 1087-93 (2002).

Altinakar, M.
St. Venant–Exner Equations for Near-Critical and Transcritical Flows. —D. A. Lyn and M. Altinakar; 128(6), 579-87 (2002).

Andrews, Darryl P.
Overtopping Breaching of Noncohesive Homogeneous Embankments. —Stephen E. Coleman, Darryl P. Andrews, and M. Grant Webby; 128(9), 829-38 (2002).

Ansar, Matahel
Discussion of "Development of Integrated Sediment Rating Curves Using ANNs" by Sharad Kumar Jain. —Matahel Ansar and Juan A. González-Castro; 128(9), 870-1 (2002).

Aracena, David
Discrete Particle Model for Analyzing Bedform Development. — Yarko Niño, Alonso Atala, Manuel Barahona, and David Aracena; 128(4), 381-9 (2002).

Arora, Geeta
Discussion of "Reliability as a Tool for Hydraulic Network Planning," by Rudy Gargano and Domenico Pianese. — M. L. Kansal and Geeta Arora; 128(1), 127 (2002).

ASCE Task Committee on Flow and Transport over Dunes
Flow and Transport over Dunes. — ASCE Task Committee on Flow and Transport over Dunes; 128(8), 726-8 (2002).

Atala, Alonso
Discrete Particle Model for Analyzing Bedform Development. — Yarko Niño, Alonso Atala, Manuel Barahona, and David Aracena; 128(4), 381-9 (2002).

Athar, Mohammad
Sediment Removal Efficiency of Vortex Chamber Type Sediment Extractor. — Mohammad Athar, Umesh C. Kothyari, and Ramchandra J. Garde; 128(12), 1051-9 (2002).

Aydin, Ismail
Measurement of Small Discharges in Open Channels by Slit Weir. — Ismail Aydin, A. Metin Ger, and Onur Hincal; 128(2), 234-7 (2002).

Babaeyan-Koopaei, K.
Closure to "Two-Dimensional Solution for Straight and Meandering Overbank Flows" by D. Alan Ervine, K. Babaeyan- Koopaei, and Robert H. J. Sellin. —D. Alan Ervine, K. Babaeyan-Koopaei, and Robert H. J. Sellin; 128(5), 551-2 (2002).
Case Study on Hydraulic Performance of Brent Reservoir Siphon Spillway. —K. Babaeyan-Koopaei, E. M. Valentine, and D. Alan Ervine; 128(6), 562-7 (2002).
Velocity and Turbulence Measurements for Two Overbank Flow Events in River Severn. —K. Babaeyan-Koopaei, D. A. Ervine, P. A. Carling, and Z. Cao; 128(10), 891-900 (2002).

Bala, Mahesh
Probability of Individual Grain Movement and Threshold Condition. —Clinton L. Dancey, Panayiotis Diplas, Athanasios Papanicolaou, and Mahesh Bala; 128(12), 1069-75 (2002).

Balachandar, Ram
Rough Wall Boundary Layer on Plates in Open Channels. — Ram Balachandar and V. C. Patel; 128(10), 947-51 (2002).

Barahona, Manuel
Discrete Particle Model for Analyzing Bedform Development. — Yarko Niño, Alonso Atala, Manuel Barahona, and David Aracena; 128(4), 381-9 (2002).

Bari, Rizwanul
Uncertainty in Water Surface Profile of Buried Stream Flowing under Coarse Material. —David Hansen and Rizwanul Bari; 128(8), 761-73 (2002).

Barkdoll, Brian D.
Discussion of "Mean Flow and Turbulence Structure of Open-Channel Flow Through Nonemergent Vegetation" by Fabián Lopez and Marcelo H. Garcia. — Brian D. Barkdoll; 128(11), 1032 (2002).
Discussion of "Calibration Assessment and Data Collection for Water Distribution Networks" by K. E. Lansey, W. El-Shorbagy, I. Ahmed, J. Araujo, and C. T. Haan. — Brian D. Barkdoll; 128(12), 1105-6 (2002).

Barry, D. A.
Tide-Induced Water Table Fluctuations in Coastal Aquifers Bounded by Rhythmic Shorelines. — L. Li, P. Dong, and D. A. Barry; 128(10), 925-33 (2002).

Barua, Dilip K.
Discussion of "Development and Geometric Similarity of Alluvial Deltas" by Chjeng-Lun Shieh, Chih-Ming Tseng, and Shaohua Marko Hsu. — Dilip K. Barua; 128(12), 1102-3 (2002).

Beirami, M. K.
Flow Characteristics at Drops. — M. R. Chamani and M. K. Beirami; 128(8), 788-91 (2002).

Bengtsson, L.
Longitudinal Dispersion Coefficient in Single-Channel Streams. —Z.-Q. Deng, L. Bengtsson, V. P. Singh, and D. D. Adrian; 128(10), 901-16 (2002).

Bennett, Sean J.
Surface Wave Forces Acting on Submerged Logs. —Nicholas P. Wallerstein, Carlos V. Alonso, Sean J. Bennett, and Colin R. Thorne; 128(3), 349-53 (2002).

Berger, R. C.
Discrete Fluxes and Mass Balance in Finite Elements. — R. C. Berger and S. E. Howington; 128(1), 87-92 (2002).

Betâmio de Almeida, A.
Parametric Analysis of Water-Hammer Effects in Small Hydro Schemes. —Helena Ramos and A. Betâmio de Almeida; 128(7), 689-96 (2002).

Bhattacharya, Amartya Kumar
Discussion of "Flow Interaction of Meandering River with Floodplains," by Kanhu Charan Patra and Srijib K. Kar. —Amartya Kumar Bhattacharya and Koustuv Debnath; 128(2), 245 (2002).

Black, K. S.
Working with Natural Cohesive Sediments. —K. S. Black, T. J. Tolhurst, D. M. Paterson, and S. E. Hagerthey; 128(1), 2-8 (2002).

Bollaert, Erik
Discussion of "Simulation of Scour Process in Plunging Pool of Loose Bed-Material" by Yafei Jia, Tadanori Kitamura, and Sam S. Y. Wang. —Erik Bollaert and Anton Schleiss; 128(7), 721-3 (2002).

Bousmar, D.
Discussion of "Two-Dimensional Solution for Straight and Meandering Overbank Flows" by D. Alan Ervine, K. Babaeyan- Koopaei, and Robert H. J. Sellin. — D. Bousmar and Y. Zech; 128(5), 550-1 (2002).

Bradford, Scott F.
Finite-Volume Model for Shallow-Water Flooding of Arbitrary Topography. — Scott F. Bradford and Brett F. Sanders; 128(3), 289-98 (2002).

Bradshaw, Peter
Review of *Turbulent flow computation* edited by D. Drikakis and B. J. Geurts. — Peter Bradshaw; 128(11), 1036 (2002).

Brunone, Bruno
Discussion of "Evaluation of Unsteady Flow Resistances by Quasi-2D or 1D Models" by Giuseppe Pezzinga. — Bruno Brunone, Marco Ferrante, and Francesco Calabresi; 128(6), 646-7 (2002).

Buesing, Aaron W.
Discussion of "Microscale Loose-Bed Hydraulic Models" by Stephen T. Maynord. —Patrick M. Foley and Aaron W. Buesing; 128(10), 952 (2002).

Buhman, Daniel L.
Stochastic Variability of Fluvial Hydraulic Geometry: Mississippi and Red Rivers. —Daniel L. Buhman, Timothy K. Gates, and Chester C. Watson; 128(4), 426-37 (2002).

Busnelli, M. M.
Closure to "Numerical Morphological Modeling of Open-Check Dams" by Marcela M. Busnelli, Guus S. Stelling, and Michelle Larcher. —M. M. Busnelli, G. S. Stelling, and M. Larcher; 128(9), 873 (2002).

Calabresi, Francesco
Discussion of "Evaluation of Unsteady Flow Resistances by Quasi-2D or 1D Models" by Giuseppe Pezzinga. —Bruno Brunone, Marco Ferrante, and Francesco Calabresi; 128(6), 646-7 (2002).

Caleffi, Valerio
Case Study: Malpasset Dam-Break Simulation using a Two-Dimensional Finite Volume Method. — Alessandro Valiani, Valerio Caleffi, and Andrea Zanni; 128(5), 460-72 (2002).

Cao, Z.
Velocity and Turbulence Measurements for Two Overbank Flow Events in River Severn. —K. Babaeyan-Koopaei, D. A. Ervine, P. A. Carling, and Z. Cao; 128(10), 891-900 (2002).

Cao, Zhixian
Coupled and Decoupled Numerical Modeling of Flow and Morphological Evolution in Alluvial Rivers. — Zhixian Cao, Rodney Day, and Shinji Egashira; 128(3), 306-21 (2002).
Discussion of "Impact of Turbidity Currents on Reservoir Sedimentation" by Giovanni De Cesare, Anton Schleiss, and Felix Hermann. —Zhixian Cao; 128(6), 644-5 (2002).
Discussion of "Numerical Morphological Modeling of Open-Check Dams" by Marcela M. Busnelli, Guus S. Stelling, and Michele Larcher. —Zhixian Cao; 128(9), 872 (2002).

Carling, P. A.
Velocity and Turbulence Measurements for Two Overbank Flow Events in River Severn. — K. Babaeyan-Koopaei, D. A. Ervine, P. A. Carling, and Z. Cao; 128(10), 891-900 (2002).

Carollo, F. G.
Flow Velocity Measurements in Vegetated Channels. — F. G. Carollo, V. Ferro, and D. Termini; 128(7), 664-73 (2002).

Carvalho, João L. B.
Field Observations of Ipanema Beach Outfall. — João L. B. Carvalho, Philip J. W. Roberts, and João Roldão; 128(2), 151-60 (2002).

Cazanacli, Dan
Experimental Steep, Braided Flow: Application to Flooding Risk on Fans. — Dan Cazanacli, Chris Paola, and Gary Parker; 128(3), 322-30 (2002).

Chamani, M. R.
Flow Characteristics at Drops. — M. R. Chamani and M. K. Beirami; 128(8), 788-91 (2002).

Chan, C. H. C.
Time-Averaged Mixing Behavior of Circular Jet in Counterflow: Velocity and Concentration Measurements. — K. M. Lam and C. H. C. Chan; 128(9), 861-5 (2002).

Chang, Shou-young
Simulation of Bed-Load Dispersion Process. —Shou-young Chang and Chin-lien Yen; 128(3), 331-42 (2002).

Chanson, H.
Air-Water Flow Measurements with Intrusive, Phase-Detection Probes: Can We Improve Their Interpretation? —H. Chanson; 128(3), 252-5 (2002).

Chaudhry, M. Hanif
Numerical Modeling of Bed Evolution in Channel Bends. —Ahmed A. Kassem and M. Hanif Chaudhry; 128(5), 507-14 (2002).

Chen, Qun
Volume of Fluid Model for Turbulence Numerical Simulation of Stepped Spillway Overflow. —Qun Chen, Guangqing Dai, and Haowu Liu; 128(7), 683-8 (2002).

Cheng, Nian-Sheng
Exponential Formula for Bedload Transport. —Nian-Sheng Cheng; 128(10), 942-6 (2002).

Chiu, Chao-Lin
Maximum Velocity and Regularities in Open-Channel Flow. —Chao-Lin Chiu and Ning-Chien Tung; 128(4), 390-8 (2002).
Ben Chie Yen (1935–2001): A Distinguished Leader in Hydraulic Engineering and Hydrology. — Chao-Lin Chiu; 128(7), 652-5 (2002).
Errata for "Maximum velocity and regularities in open-channel flow" by Chao-Lin Chiu and Ning-Chien Tung. —Chao-Lin Chiu and Ning-Chien Tung; 128(8), 803 (2002).

Choi, Sung-Uk
$k-\varepsilon$ Turbulence Modeling of Density Currents Developing Two Dimensionally on a Slope. —Sung-Uk Choi and Marcelo H. García; 128(1), 55-63 (2002).

Church, Michael A.
Measurement of Bed Load Velocity using an Acoustic Doppler Current Profiler. —Colin D. Rennie, Robert G. Millar, and Michael A. Church; 128(5), 473-83 (2002).

Coleman, Stephen E.
Overtopping Breaching of Noncohesive Homogeneous Embankments. — Stephen E. Coleman, Darryl P. Andrews, and M. Grant Webby; 128(9), 829-38 (2002).

Costa, Manuel
Deterministic Advection-Diffusion Model Based on Markov Processes. — João S. Ferreira and Manuel Costa; 128(4), 399-411 (2002).

Curini, Andrea
Case Study: Channel Stability of the Missouri River, Eastern Montana. — Andrew Simon, Robert E. Thomas, Andrea Curini, and F. Douglas Shields, Jr.; 128(10), 880-90 (2002).

Dai, Guangqing
Volume of Fluid Model for Turbulence Numerical Simulation of Stepped Spillway Overflow. — Qun Chen, Guangqing Dai, and Haowu Liu; 128(7), 683-8 (2002).

Dancey, Clinton L.
Probability of Individual Grain Movement and Threshold Condition. —Clinton L. Dancey, Panayiotis Diplas, Athanasios Papanicolaou, and Mahesh Bala; 128(12), 1069-75 (2002).

Davidson, M. J.
Strongly Advected Jet in a Coflow. —M. J. Davidson and H. J. Wang; 128(8), 742-52 (2002).

Davies, P. A.
Review of *Estuaries of South America: Their geomorphology and dynamics* edited by G. M. Perillo, M. Cintia-Piccolo, and M. Pino-Quivira. —P. A. Davies; 128(3), 362 (2002).

Day, Rodney
Coupled and Decoupled Numerical Modeling of Flow and Morphological Evolution in Alluvial Rivers. — Zhixian Cao, Rodney Day, and Shinji Egashira; 128(3), 306-21 (2002).

Debnath, Koustuv
Discussion of "Flow Interaction of Meandering River with Floodplains," by Kanhu Charan Patra and Srijib K. Kar. —Amartya Kumar Bhattacharya and Koustuv Debnath; 128(2), 245 (2002).

De Cesare, Giovanni
Closure to "Impact of Turbidity Currents on Reservoir Sedimentation" by Giovanni De Cesare, Anton Schleiss, and Felix Hermann. —Giovanni De Cesare, Anton Schleiss, and Felix Hermann; 128(6), 645 (2002).

Deng, Z.-Q.
Longitudinal Dispersion Coefficient in Single-Channel Streams. —Z.-Q. Deng, L. Bengtsson, V. P. Singh, and D. D. Adrian; 128(10), 901-16 (2002).

DeVries, Paul
Bedload Layer Thickness and Disturbance Depth in Gravel Bed Streams. —Paul DeVries; 128(11), 983-91 (2002).

Diplas, P.
Stochastic Incipient Motion Criterion for Spheres under Various Bed Packing Conditions. —A. N. Papanicolaou, P. Diplas, N. Evaggelopoulos, and S. Fotopoulos; 128(4), 369-80 (2002).

Diplas, Panayiotis
Probability of Individual Grain Movement and Threshold Condition. —Clinton L. Dancey, Panayiotis Diplas, Athanasios Papanicolaou, and Mahesh Bala; 128(12), 1069-75 (2002).

Di Santo, Antonio Rosario
Effects of Free Outflow in Rising Mains with Air Chamber. — Antonio Rosario Di Santo, Umberto Fratino, Vito Iacobellis, and Alberto Ferruccio Piccinni; 128(11), 992-1001 (2002).

Di Silvio, Giampaolo
Discussion of "Probabilistic Exner Sediment Continuity Equation for Mixtures with No Active Layer" by Gary Parker, Chris Paola, and Suzanne Leclair. — Giampaolo Di Silvio; 128(8), 798-801 (2002).

Dong, P.
Tide-Induced Water Table Fluctuations in Coastal Aquifers Bounded by Rhythmic Shorelines. — L. Li, P. Dong, and D. A. Barry; 128(10), 925-33 (2002).

Duncan, Maurice J.
Relatively Rough Flow Resistance Equations. — Graeme M. Smart, Maurice J. Duncan, and Jeremy M. Walsh; 128(6), 568-78 (2002).

Ead, S. A.
Closure to "Turbulent Open-Channel Flow in Circular Corrugated Culverts" by S. A. Ead, N. Rajaratnam, C. Katopodis, and F. Ade. —S. A. Ead, N. Rajaratnam, C. Katopodis, and F. Ade; 128(5), 549 (2002).
Hydraulic Jumps on Corrugated Beds. —S. A. Ead and N. Rajaratnam; 128(7), 656-63 (2002).
Generalized Study of Hydraulics of Culvert Fishways. — S. A. Ead, N. Rajaratnam, and C. Katopodis; 128(11), 1018-22 (2002).

Easley, Dale H.
Averaging Pore Statistics of Two-Dimensional Images for Predicting Permeability. —W. Chad Vaughan, Dale H. Easley, and Dawn L. Lavoie; 128(11), 1002-7 (2002).

Egashira, Shinji
Coupled and Decoupled Numerical Modeling of Flow and Morphological Evolution in Alluvial Rivers. — Zhixian Cao, Rodney Day, and Shinji Egashira; 128(3), 306-21 (2002).

El-Shorbagy, W.
Closure to "Calibration Assessment and Data Collection for Water Distribution Networks" by K. E. Lansey, W. El-Shorbagy, I. Ahmed, J. Araujo, and C. T. Haan. —K. E. Lansey, I. Ahmed, and W. El-Shorbagy; 128(12), 1106-7 (2002).

Ervine, D. A.
Three-Dimensional Hydrodynamics of Meandering Compound Channels. —H. Morvan, G. Pender, N. G. Wright, and D. A. Ervine; 128(7), 674-82 (2002).
Velocity and Turbulence Measurements for Two Overbank Flow Events in River Severn. —K. Babaeyan-Koopaei, D. A. Ervine, P. A. Carling, and Z. Cao; 128(10), 891-900 (2002).

Ervine, D. Alan
Closure to "Two-Dimensional Solution for Straight and Meandering Overbank Flows" by D. Alan Ervine, K. Babaeyan- Koopaei, and Robert H. J. Sellin. —D. Alan Ervine, K. Babaeyan-Koopaei, and Robert H. J. Sellin; 128(5), 551-2 (2002).
Case Study on Hydraulic Performance of Brent Reservoir Siphon Spillway. —K. Babaeyan-Koopaei, E. M. Valentine, and D. Alan Ervine; 128(6), 562-7 (2002).

Ettema, Robert
Anniversary Paper. — Robert Ettema; 128(1), 1 (2002).
Papers of Interest. — Robert Ettema; 128(1), 9 (2002).
New Editor. — Robert Ettema; 128(2), 137-8 (2002).

Evaggelopoulos, N.
Stochastic Incipient Motion Criterion for Spheres under Various Bed Packing Conditions. — A. N. Papanicolaou, P. Diplas, N. Evaggelopoulos, and S. Fotopoulos; 128(4), 369-80 (2002).

Eyheramendy, Dominique
Unified Modeling of Fluid or Granular Flows on Dam-Break Case. — Richard Frenette, Thomas Zimmermann, and Dominique Eyheramendy; 128(3), 299-305 (2002).

Falvey, H. T.
Case Study: Dillon Dam Trashrack Damage. — H. T. Falvey and J. H. Weldon; 128(2), 144-50 (2002).

Falvey, Henry T.
Review of *Dams in a European context* edited by G. H. Midttømme, B. Honningsvåg, K. Repp, K. Vaskinn, and T. Westeren. —Henry T. Falvey; 128(8), 802 (2002).

Ferrante, Marco
Discussion of "Evaluation of Unsteady Flow Resistances by Quasi-2D or 1D Models" by Giuseppe Pezzinga. —Bruno Brunone, Marco Ferrante, and Francesco Calabresi; 128(6), 646-7 (2002).

Ferreira, João S.
Deterministic Advection-Diffusion Model Based on Markov Processes. —João S. Ferreira and Manuel Costa; 128(4), 399-411 (2002).

Ferro, V.
Flow Velocity Measurements in Vegetated Channels. — F. G. Carollo, V. Ferro, and D. Termini; 128(7), 664-73 (2002).

Filion, Yves R.
Extended-Period Analysis with a Transient Model. —Yves R. Filion and Bryan W. Karney; 128(6), 616-24 (2002).

Foley, Patrick M.
Discussion of "Microscale Loose-Bed Hydraulic Models" by Stephen T. Maynord. —Patrick M. Foley and Aaron W. Buesing; 128(10), 952 (2002).

Fotopoulos, S.
Stochastic Incipient Motion Criterion for Spheres under Various Bed Packing Conditions. —A. N. Papanicolaou, P. Diplas, N. Evaggelopoulos, and S. Fotopoulos; 128(4), 369-80 (2002).

Fratino, Umberto
Effects of Free Outflow in Rising Mains with Air Chamber. —Antonio Rosario Di Santo, Umberto Fratino, Vito Iacobellis, and Alberto Ferruccio Piccinni; 128(11), 992-1001 (2002).

Frazão, S. Soares
Dam Break in Channels with 90° Bend. —S. Soares Frazão and Y. Zech; 128(11), 956-68 (2002).

Freeman, Gary E.
Federal Regulation of Wetlands in Aftermath of Supreme Court's Decision in SWANCC v. United States. —Gary E. Freeman and James R. Rasband; 128(9), 806-10 (2002).

Frenette, Richard
Unified Modeling of Fluid or Granular Flows on Dam-Break Case. — Richard Frenette, Thomas Zimmermann, and Dominique Eyheramendy; 128(3), 299-305 (2002).

Fujita, Ichiro
Review of *Flow visualization*, edited by A. J. Smits and T. T. Lim. — Ichiro Fujita; 128(2), 247-8 (2002).

Gandhi, B. K.
Effect of Speed on the Performance Characteristics of a Centrifugal Slurry Pump. — B. K. Gandhi, S. N. Singh, and V. Seshadri; 128(2), 225-33 (2002).

García, Marcelo H.
$k-\varepsilon$ Turbulence Modeling of Density Currents Developing Two Dimensionally on a Slope. — Sung-Uk Choi and Marcelo H. García; 128(1), 55-63 (2002).
Unsteady Bed Shear Stresses Induced by Navigation: Laboratory Observations. — José F. Rodríguez, David M. Admiraal, Fabián López, and Marcelo H. García; 128(5), 515-26 (2002).

Garde, Ramchandra J.
Sediment Removal Efficiency of Vortex Chamber Type Sediment Extractor. —Mohammad Athar, Umesh C. Kothyari, and Ramchandra J. Garde; 128(12), 1051-9 (2002).

Gargano, Rudy
"Closure to Reliability as Tool for Hydraulic Network Planning" by Rudy Gargano and Domenico Pianese. —Rudy Gargano and Domenico Pianese; 128(1), 128-9 (2002).
Undular Hydraulic Jumps in Circular Conduits. —Rudy Gargano and Willi H. Hager; 128(11), 1008-13 (2002).
Supercritical Flow across Sewer Manholes. —Rudy Gargano and Willi H. Hager; 128(11), 1014-7 (2002).

Gates, Timothy K.
Stochastic Variability of Fluvial Hydraulic Geometry: Mississippi and Red Rivers. —Daniel L. Buhman, Timothy K. Gates, and Chester C. Watson; 128(4), 426-37 (2002).

Ger, A. Metin
Measurement of Small Discharges in Open Channels by Slit Weir. —Ismail Aydin, A. Metin Ger, and Onur Hincal; 128(2), 234-7 (2002).

Ghamry, Haitham Kamal
Effect of Applying Different Distribution Shapes for Velocities and Pressure on Simulation of Curved Open Channels. —Haitham Kamal Ghamry and Peter M. Steffler; 128(11), 969-82 (2002).

Ghidaoui, M. S.
Gravitational and Shear Instabilities in Compound and Composite Channels. —A. A. Kolyshkin and M. S. Ghidaoui; 128(12), 1076-86 (2002).

Ghidaoui, Mohamed S.
Efficient Treatment of the Vardy–Brown Unsteady Shear in Pipe Transients. —Mohamed S. Ghidaoui and Sameh Mansour; 128(1), 102-12 (2002).
Applicability of Quasisteady and Axisymmetric Turbulence Models in Water Hammer. —Mohamed S. Ghidaoui, Sameh G. S. Mansour, and Ming Zhao; 128(10), 917-24 (2002).

Gisonni, Corrado
Finding Darcy at Dijon. — Willi H. Hager and Corrado Gisonni; 128(5), 454-9 (2002).

González-Castro, Juan A.
Discussion of "Development of Integrated Sediment Rating Curves Using ANNs" by Sharad Kumar Jain. — Matahel Ansar and Juan A. González-Castro; 128(9), 870-1 (2002).

Goring, Derek
Closure to "Flow Turbulence over Fixed and Weakly Mobile Gravel Beds" by Vladimir Nikora and Derek Goring. — Vladimir Nikora and Derek Goring; 128(3), 360-1 (2002).

Goring, Derek G.
Despiking Acoustic Doppler Velocimeter Data. — Derek G. Goring and Vladimir I. Nikora; 128(1), 117-26 (2002).
Fluctuations of Suspended Sediment Concentration and Turbulent Sediment Fluxes in an Open-Channel Flow. — Vladimir I. Nikora and Derek G. Goring; 128(2), 214-24 (2002).

Grossschaedl, G.
Discussion of "Price Current-Meter Standard Rating Development by the U.S. Geological Survey" by E. F. Hubbard, G. E. Schwarz, K. G. Thibodeaux, and Lisa M. Turcios. —G. Grossschaedl; 128(10), 952 (2002).

Guo, Qing-Chao
Modeling Nonuniform Suspended Sediment Transport in Alluvial Rivers. —Qing-Chao Guo and Yee-Chung Jin; 128(9), 839-47 (2002).

Guo, Qizhong
Applicability of Criterion for Onset of River Ice Breakup. — Qizhong Guo; 128(11), 1023-6 (2002).

Habersack, Helmut M.
Evaluation and Improvement of Bed Load Discharge Formulas based on Helley–Smith Sampling in an Alpine Gravel Bed River. —Helmut M. Habersack and Jonathan B. Laronne; 128(5), 484-99 (2002).
Errata for "Evaluation and improvement of bed load discharge formulas based on Helly-Smith sampling in an alpine gravel bed river" by Helmut M. Habersack and Jonathan B. Laronne. —Helmut M. Habersack and Jonathan B. Laronne; 128(11), 1037 (2002).

Hager, Willi H.
Finding Darcy at Dijon. —Willi H. Hager and Corrado Gisonni; 128(5), 454-9 (2002).
Shields' Entrainment Criterion in Bridge Hydraulics. — Willi H. Hager and Giuseppe Oliveto; 128(5), 538-42 (2002).
Temporal Evolution of Clear-Water Pier and Abutment Scour. —Giuseppe Oliveto and Willi H. Hager; 128(9), 811-20 (2002).
Review of *The hydraulics of stepped chutes and spillways* by Hubert Chanson. —Willi H. Hager; 128(9), 874-5 (2002).
Undular Hydraulic Jumps in Circular Conduits. —Rudy Gargano and Willi H. Hager; 128(11), 1008-13 (2002).
Supercritical Flow across Sewer Manholes. —Rudy Gargano and Willi H. Hager; 128(11), 1014-7 (2002).
Review of *Frontinus' legacy* by Deane R. Blackman and A. Trevor Hodge. —Willi H. Hager; 128(12), 1108 (2002).

Hagerthey, S. E.
Working with Natural Cohesive Sediments. — K. S. Black, T. J. Tolhurst, D. M. Paterson, and S. E. Hagerthey; 128(1), 2-8 (2002).

Hansen, David
Uncertainty in Water Surface Profile of Buried Stream Flowing under Coarse Material. — David Hansen and Rizwanul Bari; 128(8), 761-73 (2002).

Herlina
An Experimental Study on Turbulent Circular Wall Jets. — Adrian Wing-Keung Law and Herlina; 128(2), 161-74 (2002).

Hermann, Felix
Closure to "Impact of Turbidity Currents on Reservoir Sedimentation" by Giovanni De Cesare, Anton Schleiss, and Felix Hermann. — Giovanni De Cesare, Anton Schleiss, and Felix Hermann; 128(6), 645 (2002).

Hicks, F. E.
Review of *Open Channel Hydraulics*, by Terry W. Sturm. —F. E. Hicks; 128(1), 130-1 (2002).
Transient Flow in a Rapidly Filling Horizontal Pipe Containing Trapped Air. —F. Zhou, F. E. Hicks, and P. M. Steffler; 128(6), 625-34 (2002).
Observations of Air–Water Interaction in a Rapidly Filling Horizontal Pipe. —F. Zhou, F. E. Hicks, and P. M. Steffler; 128(6), 635-9 (2002).
Dynamic Model for Subcritical Combining Flows in Channel Junctions. —Shazy Shabayek, Peter Steffler, and F. E. Hicks; 128(9), 821-8 (2002).

Hincal, Onur
Measurement of Small Discharges in Open Channels by Slit Weir. —Ismail Aydin, A. Metin Ger, and Onur Hincal; 128(2), 234-7 (2002).

Hirano, M.
Prediction of Sediment Load Concentration in Rivers using Artificial Neural Network Model. —H. M. Nagy, K. Watanabe, and M. Hirano; 128(6), 588-95 (2002).

Howington, S. E.
Discrete Fluxes and Mass Balance in Finite Elements. — R. C. Berger and S. E. Howington; 128(1), 87-92 (2002).

Hsu, Chung-Chieh
Subcritical 90° Equal-Width Open-Channel Dividing Flow. —Chung-Chieh Hsu, Chii-Jau Tang, Wen-Jung Lee, and Mon-Yi Shieh; 128(7), 716-20 (2002).

Hsu, Shaohua Marko
Closure to "Development and Geometric Similarity of Alluvial Deltas" by Chjeng-Lun Shieh, Chih-Ming Tseng, and Shaohua Marko Hsu. —Chjeng-Lun Shieh, Chih-Ming Tseng, and Shaohua Marko Hsu; 128(12), 1103-5 (2002).

Huang, Jianchun
Three-Dimensional Numerical Study of Flows in Open-Channel Junctions. —Jianchun Huang, Larry J. Weber, and Yong G. Lai; 128(3), 268-80 (2002).

Huang, Liang-Hsiung
Hybrid Finite-Difference Scheme for Solving the Dispersion Equation. —Tung-Lin Tsai, Jinn-Chuang Yang, and Liang-Hsiung Huang; 128(1), 78-86 (2002).

Hubbard, E. F.
Closure to "Price Current-Meter Standard Rating Development by the U.S. Geological Survey" by E. F. Hubbard, G. E. Schwarz, K. G. Thibodeaux, and Lisa M. Turcios. — E. F. Hubbard, G. E. Schwartz, K. G. Thibodeaux, and Lisa M. Turcios; 128(10), 953 (2002).

Hunt, Bruce
Review of *Environmental fluid mechanics* by Hillel Rubin and Joseph Atkinson. — Bruce Hunt; 128(5), 553-5 (2002).

Hunziker, Roni P.
Grain Sorting Processes. — Roni P. Hunziker and Martin N. R. Jaeggi; 128(12), 1060-8 (2002).

Iacobellis, Vito
Effects of Free Outflow in Rising Mains with Air Chamber. — Antonio Rosario Di Santo, Umberto Fratino, Vito Iacobellis, and Alberto Ferruccio Piccinni; 128(11), 992-1001 (2002).

Im, Hyo-Hyuc
Case Study: Mass Transport Mechanism in Kyunggi Bay around Han River Mouth, Korea. — Kyeong Park, Jeong-Hwan Oh, Hong-Sun Kim, and Hyo-Hyuc Im; 128(3), 257-67 (2002).

Jaeggi, Martin N. R.
Grain Sorting Processes. —Roni P. Hunziker and Martin N. R. Jaeggi; 128(12), 1060-8 (2002).

Jain, Subhash C.
Review of *History of hydraulic research in India* by G. S. Dhillon. —Subhash C. Jain; 128(6), 649 (2002).

Jia, Yafei
Closure to "Simulation of Scour Process in Plunging Pool of Loose Bed- Material" by Yafei Jia, Tadanori Kitamura, and Sam S. Y. Wang. —Yafei Jia, Tadarori Kitamura, and Sam S. Y. Wang; 128(7), 723 (2002).

Jin, Yee-Chung
Modeling Nonuniform Suspended Sediment Transport in Alluvial Rivers. —Qing-Chao Guo and Yee-Chung Jin; 128(9), 839-47 (2002).

Julien, P. Y.
Case Study: Bed Resistance of Rhine River during 1998 Flood. —P. Y. Julien, G. J. Klaassen, W. B. M. Ten Brinke, and A. W. E. Wilbers; 128(12), 1042-50 (2002).

Julien, Pierre
The On-Going Challenge. —Pierre Julien; 128(3), 250-1 (2002).
A Strong Editorial Board. —Pierre Julien; 128(6), 558-60 (2002).
Sesquicentennial Highlights. —Pierre Julien; 128(12), 1040-1 (2002).

Julien, Pierre Y.
Review of *Bridge scour* by Bruce W. Melville and Stephen E. Coleman. —Pierre Y. Julien; 128(9), 875-6 (2002).

Kang, See Whan
Jet Integral–Particle Tracking Hybrid Model for Single Buoyant Jets. —Young Do Kim, Il Won Seo, See Whan Kang, and Byung Cheol Oh; 128(8), 753-60 (2002).

Kansal, M. L.
Discussion of "Reliability as a Tool for Hydraulic Network Planning," by Rudy Gargano and Domenico Pianese. —M. L. Kansal and Geeta Arora; 128(1), 127 (2002).

Kar, Srijib K.
Closure to "Flow Interaction of Meandering River with Floodplains," by Kanhu Charan Patra and Srijib K. Kar. — Kanhu Charan Patra and Srijib K. Kar; 128(2), 245-6 (2002).

Karney, Bryan W.
Extended-Period Analysis with a Transient Model. — Yves R. Filion and Bryan W. Karney; 128(6), 616-24 (2002).
Field Investigation of Frazil Jam Evolution: A Case Study. — Jueyi Sui, Bryan W. Karney, Zhaochu Sun, and Desheng Wang; 128(8), 781-7 (2002).

Kassem, Ahmed A.
Numerical Modeling of Bed Evolution in Channel Bends. — Ahmed A. Kassem and M. Hanif Chaudhry; 128(5), 507-14 (2002).

Katopodis, C.
Closure to "Turbulent Open-Channel Flow in Circular Corrugated Culverts" by S. A. Ead, N. Rajaratnam, C. Katopodis, and F. Ade. — S. A. Ead, N. Rajaratnam, C. Katopodis, and F. Ade; 128(5), 549 (2002).
Generalized Study of Hydraulics of Culvert Fishways. — S. A. Ead, N. Rajaratnam, and C. Katopodis; 128(11), 1018-22 (2002).

Kim, Hong-Sun
Case Study: Mass Transport Mechanism in Kyunggi Bay around Han River Mouth, Korea. —Kyeong Park, Jeong-Hwan Oh, Hong-Sun Kim, and Hyo-Hyuc Im; 128(3), 257-67 (2002).

Kim, Young Do
Jet Integral–Particle Tracking Hybrid Model for Single Buoyant Jets. —Young Do Kim, Il Won Seo, See Whan Kang, and Byung Cheol Oh; 128(8), 753-60 (2002).

Kinzelbach, W.
Flood Discharge Prediction using Two-Dimensional Inverse Modeling. —S. Sulzer, P. Rutschmann, and W. Kinzelbach; 128(1), 46-54 (2002).

Kit, Eliezer
Apparent Roughness in Wave–Current Flow: Implication for Coastal Studies. —Alexander Perlin and Eliezer Kit; 128(8), 729-41 (2002).

Kitamura, Tadarori
Closure to "Simulation of Scour Process in Plunging Pool of Loose Bed- Material" by Yafei Jia, Tadanori Kitamura, and Sam S. Y. Wang. —Yafei Jia, Tadarori Kitamura, and Sam S. Y. Wang; 128(7), 723 (2002).

Klaassen, G. J.
Case Study: Bed Resistance of Rhine River during 1998 Flood. —P. Y. Julien, G. J. Klaassen, W. B. M. Ten Brinke, and A. W. E. Wilbers; 128(12), 1042-50 (2002).

Kleinhans, Maarten G.
Stochastic Prediction of Sediment Transport in Sand-Gravel Bed Rivers. —Maarten G. Kleinhans and Leo C. van Rijn; 128(4), 412-25 (2002).

Kolyshkin, A. A.
Gravitational and Shear Instabilities in Compound and Composite Channels. —A. A. Kolyshkin and M. S. Ghidaoui; 128(12), 1076-86 (2002).

Kothyari, Umesh C.
Sediment Removal Efficiency of Vortex Chamber Type Sediment Extractor. — Mohammad Athar, Umesh C. Kothyari, and Ramchandra J. Garde; 128(12), 1051-9 (2002).

Kouwen, Nicholas
Stability and Erosion in Grassed Channels. — Jamal M. V. Samani and Nicholas Kouwen; 128(1), 40-5 (2002).

Kuhnle, Roger A.
Local Scour Associated with Angled Spur Dikes. — Roger A. Kuhnle, Carlos V. Alonso, and F. Douglas Shields, Jr.; 128(12), 1087-93 (2002).

Kumar Jain, Sharad
Closure to "Development of Integrated Sediment Rating Curves Using ANNs" by Sharad Kumar Jain. — Sharad Kumar Jain; 128(9), 871 (2002).

Lai, Yong G.
Three-Dimensional Numerical Study of Flows in Open-Channel Junctions. — Jianchun Huang, Larry J. Weber, and Yong G. Lai; 128(3), 268-80 (2002).

Lam, K. M.
Time-Averaged Mixing Behavior of Circular Jet in Counterflow: Velocity and Concentration Measurements. — K. M. Lam and C. H. C. Chan; 128(9), 861-5 (2002).

Lambert, Martin F.
Leak Detection in Pipelines using the Damping of Fluid Transients. —Xiao-Jian Wang, Martin F. Lambert, Angus R. Simpson, James A. Liggett, and John P. Vítkovský; 128(7), 697-711 (2002).

Lansey, K. E.
Closure to "Calibration Assessment and Data Collection for Water Distribution Networks" by K. E. Lansey, W. El-Shorbagy, I. Ahmed, J. Araujo, and C. T. Haan. —K. E. Lansey, I. Ahmed, and W. El-Shorbagy; 128(12), 1106-7 (2002).

Larcher, M.
Closure to "Numerical Morphological Modeling of Open-Check Dams" by Marcela M. Busnelli, Guus S. Stelling, and Michelle Larcher. —M. M. Busnelli, G. S. Stelling, and M. Larcher; 128(9), 873 (2002).

Laronne, Jonathan B.
Evaluation and Improvement of Bed Load Discharge Formulas based on Helley–Smith Sampling in an Alpine Gravel Bed River. —Helmut M. Habersack and Jonathan B. Laronne; 128(5), 484-99 (2002).
Errata for "Evaluation and improvement of bed load discharge formulas based on Helly-Smith sampling in an alpine gravel bed river" by Helmut M. Habersack and Jonathan B. Laronne. —Helmut M. Habersack and Jonathan B. Laronne; 128(11), 1037 (2002).

Lavoie, Dawn L.
Averaging Pore Statistics of Two-Dimensional Images for Predicting Permeability. —W. Chad Vaughan, Dale H. Easley, and Dawn L. Lavoie; 128(11), 1002-7 (2002).

Law, Adrian Wing-Keung
An Experimental Study on Turbulent Circular Wall Jets. —Adrian Wing-Keung Law and Herlina; 128(2), 161-74 (2002).

Leclair, Suzanne
Closure to "Probabilistic Exner Sediment Continuity Equation for Mixtures with No Active Layer" by Gary Parker, Chris Paola, and Suzanne Leclair. — Gary Parker, Chris Paola, and Suzanne Leclair; 128(8), 801 (2002).

Lee, Hong-Yuan
Continuous Saltating Process of Multiple Sediment Particles. — Hong-Yuan Lee, Jiing-Yun You, and Ying-Tien Lin; 128(4), 443-50 (2002).

Lee, Wen-Jung
Subcritical 90° Equal-Width Open-Channel Dividing Flow. — Chung-Chieh Hsu, Chii-Jau Tang, Wen-Jung Lee, and Mon-Yi Shieh; 128(7), 716-20 (2002).

Legrand, J.
Revisited Analysis of Pressure Drop in Flow through Crushed Rocks. — J. Legrand; 128(11), 1027-31 (2002).

Li, L.
Tide-Induced Water Table Fluctuations in Coastal Aquifers Bounded by Rhythmic Shorelines. — L. Li, P. Dong, and D. A. Barry; 128(10), 925-33 (2002).

Liedl, R.
Analytical Solution to the Zero-Inertia Problem for Surge Flow Phenomena in Nonprismatic Channels. — G. H. Schmitz, R. Liedl, and R. E. Volker; 128(6), 604-15 (2002).

Liggett, James A.
What Is Hydraulic Engineering? —James A. Liggett; 128(1), 10-9 (2002).
Leak Detection in Pipelines using the Damping of Fluid Transients. —Xiao-Jian Wang, Martin F. Lambert, Angus R. Simpson, James A. Liggett, and John P. Vítkovský; 128(7), 697-711 (2002).

Lin, Yao-Cheng
Pickup Probability of Sediment under Log-Normal Velocity Distribution. —Fu-Chun Wu and Yao-Cheng Lin; 128(4), 438-42 (2002).

Lin, Ying-Tien
Continuous Saltating Process of Multiple Sediment Particles. —Hong-Yuan Lee, Jiing-Yun You, and Ying-Tien Lin; 128(4), 443-50 (2002).

Linard, Jack
The Safest Dam. —Michael A. Stevens and Jack Linard; 128(2), 139-42 (2002).

Liu, Haowu
Volume of Fluid Model for Turbulence Numerical Simulation of Stepped Spillway Overflow. —Qun Chen, Guangqing Dai, and Haowu Liu; 128(7), 683-8 (2002).

López, Fabián
Unsteady Bed Shear Stresses Induced by Navigation: Laboratory Observations. —José F. Rodríguez, David M. Admiraal, Fabián López, and Marcelo H. García; 128(5), 515-26 (2002).

Lyn, D. A.
St. Venant–Exner Equations for Near-Critical and Transcritical Flows. —D. A. Lyn and M. Altinakar; 128(6), 579-87 (2002).

Manson, J. Russell
Discussion of "Turbulent Open-Channel Flow in Circular Corrugated Culverts" by S. A. Ead, N. Rajaratnam, C. Katopodis, and F. Ade. —Boyina V. Ramana Prasad and J. Russell Manson; 128(5), 548-9 (2002).

Mansour, Sameh
Efficient Treatment of the Vardy–Brown Unsteady Shear in Pipe Transients. — Mohamed S. Ghidaoui and Sameh Mansour; 128(1), 102-12 (2002).

Mansour, Sameh G. S.
Applicability of Quasisteady and Axisymmetric Turbulence Models in Water Hammer. — Mohamed S. Ghidaoui, Sameh G. S. Mansour, and Ming Zhao; 128(10), 917-24 (2002).

Marino, B. M.
Spreading of a Gravity Current over a Permeable Surface. — B. M. Marino and L. P. Thomas; 128(5), 527-33 (2002).

Maynord, Stephen T.
Closure to "Microscale Loose-Bed Hydraulic Models" by Stephen T. Maynord. — Stephen T. Maynord; 128(10), 952 (2002).

McEwan, Ian
Discussion of "Flow Turbulence over Fixed and Weakly Mobile Gravel Beds" by Vladimir Nikora and Derek Goring. —Ian McEwan; 128(3), 359-60 (2002).

Millar, Robert G.
Measurement of Bed Load Velocity using an Acoustic Doppler Current Profiler. —Colin D. Rennie, Robert G. Millar, and Michael A. Church; 128(5), 473-83 (2002).

Mizumura, Kazumasa
Flow in Open-Channel Embayments. —Kazumasa Mizumura and Masashige Yamasaka; 128(12), 1098-101 (2002).

Morita, Masaru
Modeling of Conjunctive Two-Dimensional Surface-Three-Dimensional Subsurface Flows. —Masaru Morita and Ben Chie Yen; 128(2), 184-200 (2002).

Morvan, H.
Three-Dimensional Hydrodynamics of Meandering Compound Channels. —H. Morvan, G. Pender, N. G. Wright, and D. A. Ervine; 128(7), 674-82 (2002).

Muslu, Yilmaz
Lateral Weir Flow Model using a Curve Fitting Analysis. — Yilmaz Muslu; 128(7), 712-5 (2002).

Nagy, H. M.
Prediction of Sediment Load Concentration in Rivers using Artificial Neural Network Model. —H. M. Nagy, K. Watanabe, and M. Hirano; 128(6), 588-95 (2002).

Nikora, Vladimir
Closure to "Flow Turbulence over Fixed and Weakly Mobile Gravel Beds" by Vladimir Nikora and Derek Goring. —Vladimir Nikora and Derek Goring; 128(3), 360-1 (2002).

Nikora, Vladimir I.
Despiking Acoustic Doppler Velocimeter Data. —Derek G. Goring and Vladimir I. Nikora; 128(1), 117-26 (2002).
Fluctuations of Suspended Sediment Concentration and Turbulent Sediment Fluxes in an Open-Channel Flow. —Vladimir I. Nikora and Derek G. Goring; 128(2), 214-24 (2002).

Niño, Yarko
Discrete Particle Model for Analyzing Bedform Development. — Yarko Niño, Alonso Atala, Manuel Barahona, and David Aracena; 128(4), 381-9 (2002).
Simple Model for Downstream Variation of Median Sediment Size in Chilean Rivers. — Yarko Niño; 128(10), 934-41 (2002).

Nsom, Blaise
Horizontal Viscous Dam—Break Flow: Experiments and Theory. — Blaise Nsom; 128(5), 543-6 (2002).

Oh, Byung Cheol
Jet Integral–Particle Tracking Hybrid Model for Single Buoyant Jets. — Young Do Kim, Il Won Seo, See Whan Kang, and Byung Cheol Oh; 128(8), 753-60 (2002).

Oh, Jeong-Hwan
Case Study: Mass Transport Mechanism in Kyunggi Bay around Han River Mouth, Korea. — Kyeong Park, Jeong-Hwan Oh, Hong-Sun Kim, and Hyo-Hyuc Im; 128(3), 257-67 (2002).

Oliveto, Giuseppe
Shields' Entrainment Criterion in Bridge Hydraulics. — Willi H. Hager and Giuseppe Oliveto; 128(5), 538-42 (2002).
Temporal Evolution of Clear-Water Pier and Abutment Scour. —Giuseppe Oliveto and Willi H. Hager; 128(9), 811-20 (2002).

Paintal, A. S.
Review of *Urban drainage* by David Butler and John W. Davies. —A. S. Paintal; 128(7), 724 (2002).

Paola, Chris
Experimental Steep, Braided Flow: Application to Flooding Risk on Fans. —Dan Cazanacli, Chris Paola, and Gary Parker; 128(3), 322-30 (2002).
Closure to "Probabilistic Exner Sediment Continuity Equation for Mixtures with No Active Layer" by Gary Parker, Chris Paola, and Suzanne Leclair. — Gary Parker, Chris Paola, and Suzanne Leclair; 128(8), 801 (2002).

Papanicolaou, A. N.
Stochastic Incipient Motion Criterion for Spheres under Various Bed Packing Conditions. —A. N. Papanicolaou, P. Diplas, N. Evaggelopoulos, and S. Fotopoulos; 128(4), 369-80 (2002).

Papanicolaou, A. N. (Thanos)
Review of *Stochastic hydraulics 2000*, by Zhao-Yin Wang and Shi-Xiong Hu. —A. N. (Thanos) Papanicolaou; 128(4), 451-2 (2002).

Papanicolaou, Athanasios
Probability of Individual Grain Movement and Threshold Condition. —Clinton L. Dancey, Panayiotis Diplas, Athanasios Papanicolaou, and Mahesh Bala; 128(12), 1069-75 (2002).

Papanicolaou, Athanasios (Thanos) N.
Stochastic Fluvial Hydraulics. —Athanasios (Thanos) N. Papanicolaou; 128(4), 364 (2002).

Papanicolaou, Athanasios N.
Discussion of "Turbulent Open-Channel Flow in Circular Corrugated Culverts" by S. A. Ead, N. Rajaratnam, C. Katopodis, and F. Ade. —Athanasios N. Papanicolaou and Nasser Talebbeydokhti; 128(5), 547-8 (2002).

Park, Kyeong
Case Study: Mass Transport Mechanism in Kyunggi Bay around Han River Mouth, Korea. — Kyeong Park, Jeong-Hwan Oh, Hong-Sun Kim, and Hyo-Hyuc Im; 128(3), 257-67 (2002).

Parker, Gary
Experimental Steep, Braided Flow: Application to Flooding Risk on Fans. — Dan Cazanacli, Chris Paola, and Gary Parker; 128(3), 322-30 (2002).
Closure to "Probabilistic Exner Sediment Continuity Equation for Mixtures with No Active Layer" by Gary Parker, Chris Paola, and Suzanne Leclair. — Gary Parker, Chris Paola, and Suzanne Leclair; 128(8), 801 (2002).

Patel, V. C.
Rough Wall Boundary Layer on Plates in Open Channels. — Ram Balachandar and V. C. Patel; 128(10), 947-51 (2002).

Paterson, D. M.
Working with Natural Cohesive Sediments. — K. S. Black, T. J. Tolhurst, D. M. Paterson, and S. E. Hagerthey; 128(1), 2-8 (2002).

Patra, Kanhu Charan
Closure to "Flow Interaction of Meandering River with Floodplains," by Kanhu Charan Patra and Srijib K. Kar. —Kanhu Charan Patra and Srijib K. Kar; 128(2), 245-6 (2002).

Pender, G.
Three-Dimensional Hydrodynamics of Meandering Compound Channels. —H. Morvan, G. Pender, N. G. Wright, and D. A. Ervine; 128(7), 674-82 (2002).

Perlin, Alexander
Apparent Roughness in Wave–Current Flow: Implication for Coastal Studies. —Alexander Perlin and Eliezer Kit; 128(8), 729-41 (2002).

Pezzinga, Giuseppe
Unsteady Flow in Hydraulic Networks with Polymeric Additional Pipe. —Giuseppe Pezzinga; 128(2), 238-44 (2002).
Closure to "Evaluation of Unsteady Flow Resistances by Quasi-2D or 1D Models" by Giuseppe Pezzinga. —Giuseppe Pezzinga; 128(6), 647-8 (2002).

Pianese, Domenico
"Closure to Reliability as Tool for Hydraulic Network Planning" by Rudy Gargano and Domenico Pianese. —Rudy Gargano and Domenico Pianese; 128(1), 128-9 (2002).

Piasecki, Michael
Mitigation of Salinity Intrusion in Well-mixed Estuaries by Optimization of Freshwater Diversion Rates. —Brett F. Sanders and Michael Piasecki; 128(1), 64-77 (2002).

Piccinni, Alberto Ferruccio
Effects of Free Outflow in Rising Mains with Air Chamber. —Antonio Rosario Di Santo, Umberto Fratino, Vito Iacobellis, and Alberto Ferruccio Piccinni; 128(11), 992-1001 (2002).

Rajaratnam, N.
Closure to "Turbulent Open-Channel Flow in Circular Corrugated Culverts" by S. A. Ead, N. Rajaratnam, C. Katopodis, and F. Ade. —S. A. Ead, N. Rajaratnam, C. Katopodis, and F. Ade; 128(5), 549 (2002).
Hydraulic Jumps on Corrugated Beds. —S. A. Ead and N. Rajaratnam; 128(7), 656-63 (2002).

Generalized Study of Hydraulics of Culvert Fishways. — S. A. Ead, N. Rajaratnam, and C. Katopodis; 128(11), 1018-22 (2002).
Review of *Research perspectives in hydraulics and water resources engineering* edited by Rama Prasad and S. Vedula. — N. Rajaratnam; 128(12), 1108-9 (2002).

Ramana Prasad, Boyina V.
Discussion of "Turbulent Open-Channel Flow in Circular Corrugated Culverts" by S. A. Ead, N. Rajaratnam, C. Katopodis, and F. Ade. — Boyina V. Ramana Prasad and J. Russell Manson; 128(5), 548-9 (2002).

Ramos, Helena
Parametric Analysis of Water-Hammer Effects in Small Hydro Schemes. — Helena Ramos and A. Betâmio de Almeida; 128(7), 689-96 (2002).

Rasband, James R.
Federal Regulation of Wetlands in Aftermath of Supreme Court's Decision in SWANCC v. United States. — Gary E. Freeman and James R. Rasband; 128(9), 806-10 (2002).

Rennie, Colin D.
Measurement of Bed Load Velocity using an Acoustic Doppler Current Profiler. —Colin D. Rennie, Robert G. Millar, and Michael A. Church; 128(5), 473-83 (2002).

Revelli, Roberto
Fuzzy Approach for Analysis of Pipe Networks. —Roberto Revelli and Luca Ridolfi; 128(1), 93-101 (2002).

Richardson, W. Roy
Simplified Model for Assessing Meander Bend Migration Rates. —W. Roy Richardson; 128(12), 1094-7 (2002).

Ridolfi, Luca
Fuzzy Approach for Analysis of Pipe Networks. —Roberto Revelli and Luca Ridolfi; 128(1), 93-101 (2002).

Roberts, Philip J. W.
Field Observations of Ipanema Beach Outfall. —João L. B. Carvalho, Philip J. W. Roberts, and João Roldão; 128(2), 151-60 (2002).

Rodríguez, José F.
Unsteady Bed Shear Stresses Induced by Navigation: Laboratory Observations. —José F. Rodríguez, David M. Admiraal, Fabián López, and Marcelo H. García; 128(5), 515-26 (2002).

Roldão, João
Field Observations of Ipanema Beach Outfall. —João L. B. Carvalho, Philip J. W. Roberts, and João Roldão; 128(2), 151-60 (2002).

Rueda, Francisco J.
Quantitative Comparison of Models for Barotropic Response of Homogeneous Basins. —Francisco J. Rueda and S. Geoffrey Schladow; 128(2), 201-13 (2002).

Rutschmann, P.
Flood Discharge Prediction using Two-Dimensional Inverse Modeling. —S. Sulzer, P. Rutschmann, and W. Kinzelbach; 128(1), 46-54 (2002).

Samani, Jamal M. V.
Stability and Erosion in Grassed Channels. —Jamal M. V. Samani and Nicholas Kouwen; 128(1), 40-5 (2002).

Sanders, Brett F.
Mitigation of Salinity Intrusion in Well-mixed Estuaries by Optimization of Freshwater Diversion Rates. — Brett F. Sanders and Michael Piasecki; 128(1), 64-77 (2002).
Finite-Volume Model for Shallow-Water Flooding of Arbitrary Topography. — Scott F. Bradford and Brett F. Sanders; 128(3), 289-98 (2002).

Schladow, S. Geoffrey
Quantitative Comparison of Models for Barotropic Response of Homogeneous Basins. — Francisco J. Rueda and S. Geoffrey Schladow; 128(2), 201-13 (2002).

Schleiss, Anton
Closure to "Impact of Turbidity Currents on Reservoir Sedimentation" by Giovanni De Cesare, Anton Schleiss, and Felix Hermann. — Giovanni De Cesare, Anton Schleiss, and Felix Hermann; 128(6), 645 (2002).
Discussion of "Simulation of Scour Process in Plunging Pool of Loose Bed-Material" by Yafei Jia, Tadanori Kitamura, and Sam S. Y. Wang. — Erik Bollaert and Anton Schleiss; 128(7), 721-3 (2002).

Schmid, Bernhard H.
Persistence of Skewness in Longitudinal Dispersion Data: Can the Dead Zone Model Explain It After All? —Bernhard H. Schmid; 128(9), 848-54 (2002).

Schmitz, G. H.
Analytical Solution to the Zero-Inertia Problem for Surge Flow Phenomena in Nonprismatic Channels. — G. H. Schmitz, R. Liedl, and R. E. Volker; 128(6), 604-15 (2002).

Schwartz, G. E.
Closure to "Price Current-Meter Standard Rating Development by the U.S. Geological Survey" by E. F. Hubbard, G. E. Schwarz, K. G. Thibodeaux, and Lisa M. Turcios. —E. F. Hubbard, G. E. Schwartz, K. G. Thibodeaux, and Lisa M. Turcios; 128(10), 953 (2002).

Sellin, Robert H. J.
Closure to "Two-Dimensional Solution for Straight and Meandering Overbank Flows" by D. Alan Ervine, K. Babaeyan- Koopaei, and Robert H. J. Sellin. —D. Alan Ervine, K. Babaeyan-Koopaei, and Robert H. J. Sellin; 128(5), 551-2 (2002).

Seo, Il Won
Jet Integral–Particle Tracking Hybrid Model for Single Buoyant Jets. —Young Do Kim, Il Won Seo, See Whan Kang, and Byung Cheol Oh; 128(8), 753-60 (2002).

Seshadri, V.
Effect of Speed on the Performance Characteristics of a Centrifugal Slurry Pump. —B. K. Gandhi, S. N. Singh, and V. Seshadri; 128(2), 225-33 (2002).

Shabayek, Shazy
Dynamic Model for Subcritical Combining Flows in Channel Junctions. —Shazy Shabayek, Peter Steffler, and F. E. Hicks; 128(9), 821-8 (2002).

Shen, Hung Tao
Hydraulic Resistance of Flow in Channels with Cylindrical Roughness. —Brian M. Stone and Hung Tao Shen; 128(5), 500-6 (2002).

Shieh, Chjeng-Lun
Closure to "Development and Geometric Similarity of Alluvial Deltas" by Chjeng-Lun Shieh, Chih-Ming Tseng, and Shaohua Marko Hsu. — Chjeng-Lun Shieh, Chih-Ming Tseng, and Shaohua Marko Hsu; 128(12), 1103-5 (2002).

Shieh, Mon-Yi
Subcritical 90° Equal-Width Open-Channel Dividing Flow. — Chung-Chieh Hsu, Chii-Jau Tang, Wen-Jung Lee, and Mon-Yi Shieh; 128(7), 716-20 (2002).

Shields, F. Douglas, Jr.
Case Study: Channel Stability of the Missouri River, Eastern Montana. — Andrew Simon, Robert E. Thomas, Andrea Curini, and F. Douglas Shields, Jr.; 128(10), 880-90 (2002).
Local Scour Associated with Angled Spur Dikes. — Roger A. Kuhnle, Carlos V. Alonso, and F. Douglas Shields, Jr.; 128(12), 1087-93 (2002).

Shukla, V. P.
Analytical Solutions for Unsteady Transport Dispersion of Nonconservative Pollutant with Time-Dependent Periodic Waste Discharge Concentration. — V. P. Shukla; 128(9), 866-9 (2002).

Simon, Andrew
Case Study: Channel Stability of the Missouri River, Eastern Montana. —Andrew Simon, Robert E. Thomas, Andrea Curini, and F. Douglas Shields, Jr.; 128(10), 880-90 (2002).

Simpson, Angus R.
Leak Detection in Pipelines using the Damping of Fluid Transients. —Xiao-Jian Wang, Martin F. Lambert, Angus R. Simpson, James A. Liggett, and John P. Vítkovský; 128(7), 697-711 (2002).

Singh, S. N.
Effect of Speed on the Performance Characteristics of a Centrifugal Slurry Pump. —B. K. Gandhi, S. N. Singh, and V. Seshadri; 128(2), 225-33 (2002).

Singh, Sushil K.
Well Loss Estimation: Variable Pumping Replacing Step Drawdown Test. —Sushil K. Singh; 128(3), 343-8 (2002).
Aquifer Boundaries and Parameter Identification Simplified. — Sushil K. Singh; 128(8), 774-80 (2002).
Discussion of "Moment-Based Calculation of Parameters for the Storage Zone Model for River Dispersion" by Il Won Seo and Tae Sung Cheong. — Sushil K. Singh; 128(11), 1032-3 (2002).

Singh, V. P.
Longitudinal Dispersion Coefficient in Single-Channel Streams. —Z.-Q. Deng, L. Bengtsson, V. P. Singh, and D. D. Adrian; 128(10), 901-16 (2002).

Smart, Graeme M.
Relatively Rough Flow Resistance Equations. —Graeme M. Smart, Maurice J. Duncan, and Jeremy M. Walsh; 128(6), 568-78 (2002).

Steffler, P. M.
Transient Flow in a Rapidly Filling Horizontal Pipe Containing Trapped Air. —F. Zhou, F. E. Hicks, and P. M. Steffler; 128(6), 625-34 (2002).
Observations of Air–Water Interaction in a Rapidly Filling Horizontal Pipe. —F. Zhou, F. E. Hicks, and P. M. Steffler; 128(6), 635-9 (2002).

Steffler, Peter
Dynamic Model for Subcritical Combining Flows in Channel Junctions. — Shazy Shabayek, Peter Steffler, and F. E. Hicks; 128(9), 821-8 (2002).

Steffler, Peter M.
Effect of Applying Different Distribution Shapes for Velocities and Pressure on Simulation of Curved Open Channels. — Haitham Kamal Ghamry and Peter M. Steffler; 128(11), 969-82 (2002).

Stelling, G. S.
Closure to "Numerical Morphological Modeling of Open-Check Dams" by Marcela M. Busnelli, Guus S. Stelling, and Michelle Larcher. — M. M. Busnelli, G. S. Stelling, and M. Larcher; 128(9), 873 (2002).

Stephenson, D.
Simple Guide for Design of Air Vessels for Water Hammer Protection of Pumping Lines. — D. Stephenson; 128(8), 792-7 (2002).

Stevens, Michael A.
The Safest Dam. —Michael A. Stevens and Jack Linard; 128(2), 139-42 (2002).

Stone, Brian M.
Hydraulic Resistance of Flow in Channels with Cylindrical Roughness. —Brian M. Stone and Hung Tao Shen; 128(5), 500-6 (2002).

Sui, Jueyi
Field Investigation of Frazil Jam Evolution: A Case Study. —Jueyi Sui, Bryan W. Karney, Zhaochu Sun, and Desheng Wang; 128(8), 781-7 (2002).

Sulzer, S.
Flood Discharge Prediction using Two-Dimensional Inverse Modeling. —S. Sulzer, P. Rutschmann, and W. Kinzelbach; 128(1), 46-54 (2002).

Sun, Zhaochu
Field Investigation of Frazil Jam Evolution: A Case Study. —Jueyi Sui, Bryan W. Karney, Zhaochu Sun, and Desheng Wang; 128(8), 781-7 (2002).

Talebbeydokhti, Nasser
Discussion of "Turbulent Open-Channel Flow in Circular Corrugated Culverts" by S. A. Ead, N. Rajaratnam, C. Katopodis, and F. Ade. —Athanasios N. Papanicolaou and Nasser Talebbeydokhti; 128(5), 547-8 (2002).

Tang, Chii-Jau
Subcritical 90° Equal-Width Open-Channel Dividing Flow. —Chung-Chieh Hsu, Chii-Jau Tang, Wen-Jung Lee, and Mon-Yi Shieh; 128(7), 716-20 (2002).

Ten Brinke, W. B. M.
Case Study: Bed Resistance of Rhine River during 1998 Flood. —P. Y. Julien, G. J. Klaassen, W. B. M. Ten Brinke, and A. W. E. Wilbers; 128(12), 1042-50 (2002).

Termini, D.
Flow Velocity Measurements in Vegetated Channels. — F. G. Carollo, V. Ferro, and D. Termini; 128(7), 664-73 (2002).

Thibodeaux, K. G.
Closure to "Price Current-Meter Standard Rating Development by the U.S. Geological Survey" by E. F. Hubbard, G. E. Schwarz, K. G. Thibodeaux, and Lisa M. Turcios. —E. F. Hubbard, G. E. Schwartz, K. G. Thibodeaux, and Lisa M. Turcios; 128(10), 953 (2002).

Thomas, L. P.
Spreading of a Gravity Current over a Permeable Surface. — B. M. Marino and L. P. Thomas; 128(5), 527-33 (2002).

Thomas, Robert E.
Case Study: Channel Stability of the Missouri River, Eastern Montana. — Andrew Simon, Robert E. Thomas, Andrea Curini, and F. Douglas Shields, Jr.; 128(10), 880-90 (2002).

Thompson, Douglas M.
Channel-Bed Scour with High versus Low Deflectors. — Douglas M. Thompson; 128(6), 640-3 (2002).

Thorne, Colin R.
Surface Wave Forces Acting on Submerged Logs. — Nicholas P. Wallerstein, Carlos V. Alonso, Sean J. Bennett, and Colin R. Thorne; 128(3), 349-53 (2002).

Thornton, Christopher I.
Review of *Applying geomorphology to environmental management* edited by Deborah J. Anthony, Michael D. Harvey, Jonathan B. Laronne, and M. Paul Mosley. —Chester C. Watson and Christopher I. Thornton; 128(11), 1034-6 (2002).

Tolhurst, T. J.
Working with Natural Cohesive Sediments. —K. S. Black, T. J. Tolhurst, D. M. Paterson, and S. E. Hagerthey; 128(1), 2-8 (2002).

Tsai, Tung-Lin
Hybrid Finite-Difference Scheme for Solving the Dispersion Equation. —Tung-Lin Tsai, Jinn-Chuang Yang, and Liang-Hsiung Huang; 128(1), 78-86 (2002).

Tseng, Chih-Ming
Closure to "Development and Geometric Similarity of Alluvial Deltas" by Chjeng-Lun Shieh, Chih-Ming Tseng, and Shaohua Marko Hsu. —Chjeng-Lun Shieh, Chih-Ming Tseng, and Shaohua Marko Hsu; 128(12), 1103-5 (2002).

Tung, Ning-Chien
Maximum Velocity and Regularities in Open-Channel Flow. —Chao-Lin Chiu and Ning-Chien Tung; 128(4), 390-8 (2002).
Errata for "Maximum velocity and regularities in open-channel flow" by Chao-Lin Chiu and Ning-Chien Tung. —Chao-Lin Chiu and Ning-Chien Tung; 128(8), 803 (2002).

Turcios, Lisa M.
Closure to "Price Current-Meter Standard Rating Development by the U.S. Geological Survey" by E. F. Hubbard, G. E. Schwarz, K. G. Thibodeaux, and Lisa M. Turcios. —E. F. Hubbard, G. E. Schwartz, K. G. Thibodeaux, and Lisa M. Turcios; 128(10), 953 (2002).

Valentine, E. M.
Case Study on Hydraulic Performance of Brent Reservoir Siphon Spillway. —K. Babaeyan-Koopaei, E. M. Valentine, and D. Alan Ervine; 128(6), 562-7 (2002).

Valiani, Alessandro
Case Study: Malpasset Dam-Break Simulation using a Two-Dimensional Finite Volume Method. — Alessandro Valiani, Valerio Caleffi, and Andrea Zanni; 128(5), 460-72 (2002).

van Rijn, Leo C.
Stochastic Prediction of Sediment Transport in Sand-Gravel Bed Rivers. — Maarten G. Kleinhans and Leo C. van Rijn; 128(4), 412-25 (2002).

Vaughan, W. Chad
Averaging Pore Statistics of Two-Dimensional Images for Predicting Permeability. — W. Chad Vaughan, Dale H. Easley, and Dawn L. Lavoie; 128(11), 1002-7 (2002).

Venutelli, Maurizio
Stability and Accuracy of Weighted Four-Point Implicit Finite Difference Schemes for Open Channel Flow. — Maurizio Venutelli; 128(3), 281-8 (2002).

Vítkovský, John P.
Leak Detection in Pipelines using the Damping of Fluid Transients. — Xiao-Jian Wang, Martin F. Lambert, Angus R. Simpson, James A. Liggett, and John P. Vítkovský; 128(7), 697-711 (2002).

Volker, R. E.
Analytical Solution to the Zero-Inertia Problem for Surge Flow Phenomena in Nonprismatic Channels. — G. H. Schmitz, R. Liedl, and R. E. Volker; 128(6), 604-15 (2002).

Wallerstein, Nicholas P.
Surface Wave Forces Acting on Submerged Logs. —Nicholas P. Wallerstein, Carlos V. Alonso, Sean J. Bennett, and Colin R. Thorne; 128(3), 349-53 (2002).

Walsh, Jeremy M.
Relatively Rough Flow Resistance Equations. —Graeme M. Smart, Maurice J. Duncan, and Jeremy M. Walsh; 128(6), 568-78 (2002).

Wang, Desheng
Field Investigation of Frazil Jam Evolution: A Case Study. —Jueyi Sui, Bryan W. Karney, Zhaochu Sun, and Desheng Wang; 128(8), 781-7 (2002).

Wang, H. J.
Strongly Advected Jet in a Coflow. —M. J. Davidson and H. J. Wang; 128(8), 742-52 (2002).

Wang, Sam S. Y.
Closure to "Simulation of Scour Process in Plunging Pool of Loose Bed- Material" by Yafei Jia, Tadanori Kitamura, and Sam S. Y. Wang. —Yafei Jia, Tadarori Kitamura, and Sam S. Y. Wang; 128(7), 723 (2002).

Wang, Wenjie
New Method for Meander-Loop Cutoffs. —Shaolong Xiong, Zhaocai Xu, and Wenjie Wang; 128(3), 354-8 (2002).

Wang, Xiao-Jian
Leak Detection in Pipelines using the Damping of Fluid Transients. —Xiao-Jian Wang, Martin F. Lambert, Angus R. Simpson, James A. Liggett, and John P. Vítkovský; 128(7), 697-711 (2002).

Watanabe, K.
Prediction of Sediment Load Concentration in Rivers using Artificial Neural Network Model. —H. M. Nagy, K. Watanabe, and M. Hirano; 128(6), 588-95 (2002).

Watson, Chester C.
Stochastic Variability of Fluvial Hydraulic Geometry: Mississippi and Red Rivers. —Daniel L. Buhman, Timothy K. Gates, and Chester C. Watson; 128(4), 426-37 (2002).
Review of *Applying geomorphology to environmental management* edited by Deborah J. An-

thony, Michael D. Harvey, Jonathan B. Laronne, and M. Paul Mosley. — Chester C. Watson and Christopher I. Thornton; 128(11), 1034-6 (2002).

Webby, M. Grant
Overtopping Breaching of Noncohesive Homogeneous Embankments. — Stephen E. Coleman, Darryl P. Andrews, and M. Grant Webby; 128(9), 829-38 (2002).

Weber, Larry J.
Three-Dimensional Numerical Study of Flows in Open-Channel Junctions. — Jianchun Huang, Larry J. Weber, and Yong G. Lai; 128(3), 268-80 (2002).

Weldon, J. H.
Case Study: Dillon Dam Trashrack Damage. — H. T. Falvey and J. H. Weldon; 128(2), 144-50 (2002).

Wilbers, A. W. E.
Case Study: Bed Resistance of Rhine River during 1998 Flood. — P. Y. Julien, G. J. Klaassen, W. B. M. Ten Brinke, and A. W. E. Wilbers; 128(12), 1042-50 (2002).

Wright, N. G.
Three-Dimensional Hydrodynamics of Meandering Compound Channels. — H. Morvan, G. Pender, N. G. Wright, and D. A. Ervine; 128(7), 674-82 (2002).

Wu, Fu-Chun
Pickup Probability of Sediment under Log-Normal Velocity Distribution. — Fu-Chun Wu and Yao-Cheng Lin; 128(4), 438-42 (2002).

Xie, Hao
Modeling Underwater Oil/Gas Jets and Plumes: Comparison with Field Data. — Poojitha D. Yapa and Hao Xie; 128(9), 855-60 (2002).

Xiong, Shaolong
New Method for Meander-Loop Cutoffs. — Shaolong Xiong, Zhaocai Xu, and Wenjie Wang; 128(3), 354-8 (2002).

Xu, Zhaocai
New Method for Meander-Loop Cutoffs. — Shaolong Xiong, Zhaocai Xu, and Wenjie Wang; 128(3), 354-8 (2002).

Yamasaka, Masashige
Flow in Open-Channel Embayments. — Kazumasa Mizumura and Masashige Yamasaka; 128(12), 1098-101 (2002).

Yang, Jinn-Chuang
Hybrid Finite-Difference Scheme for Solving the Dispersion Equation. — Tung-Lin Tsai, Jinn-Chuang Yang, and Liang-Hsiung Huang; 128(1), 78-86 (2002).

Yang, Shaw-Yang
Solution for Flow Rates across the Wellbore in a Two-Zone Confined Aquifer. — Shaw-Yang Yang and Hund-Der Yeh; 128(2), 175-83 (2002).

Yapa, Poojitha D.
Modeling Underwater Oil/Gas Jets and Plumes: Comparison with Field Data. — Poojitha D. Yapa and Hao Xie; 128(9), 855-60 (2002).

Yeh, Hund-Der
Solution for Flow Rates across the Wellbore in a Two-Zone Confined Aquifer. — Shaw-Yang Yang and Hund-Der Yeh; 128(2), 175-83 (2002).

Yen, Ben C.
Stochastic Inference to Sediment and Fluvial Hydraulics. — Ben C. Yen; 128(4), 365-7 (2002).

Yen, Ben Chie
Open Channel Flow Resistance. — Ben Chie Yen; 128(1), 20-39 (2002).
Modeling of Conjunctive Two-Dimensional Surface-Three-Dimensional Subsurface Flows. — Masaru Morita and Ben Chie Yen; 128(2), 184-200 (2002).
Errata for "Open Channel Flow Resistance" by Ben Chie Yen. — Ben Chie Yen; 128(9), 877 (2002).

Yen, Chin-lien
Simulation of Bed-Load Dispersion Process. — Shou-young Chang and Chin-lien Yen; 128(3), 331-42 (2002).

You, Jiing-Yun
Continuous Saltating Process of Multiple Sediment Particles. — Hong-Yuan Lee, Jiing-Yun You, and Ying-Tien Lin; 128(4), 443-50 (2002).

Zanni, Andrea
Case Study: Malpasset Dam-Break Simulation using a Two-Dimensional Finite Volume Method. — Alessandro Valiani, Valerio Caleffi, and Andrea Zanni; 128(5), 460-72 (2002).

Zech, Y.
Discussion of "Two-Dimensional Solution for Straight and Meandering Overbank Flows" by D. Alan Ervine, K. Babaeyan- Koopaei, and Robert H. J. Sellin. — D. Bousmar and Y. Zech; 128(5), 550-1 (2002).
Dam Break in Channels with 90° Bend. — S. Soares Frazão and Y. Zech; 128(11), 956-68 (2002).

Zhao, Ming
Applicability of Quasisteady and Axisymmetric Turbulence Models in Water Hammer. — Mohamed S. Ghidaoui, Sameh G. S. Mansour, and Ming Zhao; 128(10), 917-24 (2002).

Zhou, F.
Transient Flow in a Rapidly Filling Horizontal Pipe Containing Trapped Air. — F. Zhou, F. E. Hicks, and P. M. Steffler; 128(6), 625-34 (2002).
Observations of Air–Water Interaction in a Rapidly Filling Horizontal Pipe. — F. Zhou, F. E. Hicks, and P. M. Steffler; 128(6), 635-9 (2002).

Zhu, David Z.
Control Curves for Two-Layer Flows. — David Z. Zhu; 128(1), 113-6 (2002).

Zima, Laura
Wave Generation in Open Channels by Vortex Shedding from Channel Obstructions. — Laura Zima and Norbert L. Ackermann; 128(6), 596-603 (2002).

Zimmermann, Thomas
Unified Modeling of Fluid or Granular Flows on Dam-Break Case. — Richard Frenette, Thomas Zimmermann, and Dominique Eyheramendy; 128(3), 299-305 (2002).